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OF THE SCHOOL COMMITTEE OF THE

CITY OF BOSTON

1905 ~ 6/





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ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF BOSTON

1905



BOSTON MUNICIPAL PRINTING OFFICE 1905 218 55

TRADES (MONT) COUNCEL

REPORT.

In compliance with the Revised Laws and in accordance with the rules of the School Board, the committee appointed to prepare the annual report of the School Committee for the year 1905 respectfully submit the following:

SCHOOL SYSTEM.

The public school system of Boston comprises¹ one Normal School, two Latin Schools (one for boys and one for girls), nine High Schools, the Mechanic Arts High School (for boys), sixty-two Grammar Schools, seven hundred eighteen Primary Classes, seven Special Classes, one hundred Kindergartens, one School for the Deaf, six Evening High Schools and thirteen Evening Elementary Schools, six Evening Drawing Schools, a special School on Spectacle Island, forty-six Manual Training Schools, and thirty-six Schools of Cookery.

STATISTICS.2

The following statistics are for the year ended June 30, 1905, excepting the number of children in Boston between the ages of five and fifteen years, and the number reported as attending public and private schools, which are from the census taken September 1, 1905:

¹ June 30, 1905.

² Other and more complete statistics may be found in School Documents Nos. 7 and 8, 1905.

Number of children in Boston b and fifteen Sept. 1, 1905						101,865
Number attending public schools	Sent.	. 1. 1	905			
Number attending private schools						15,913
Whole number of different pur						20,010
public day schools during th						
Boys, 52,330; girls, 50,550; t	total	•		•	. 1	102,880
REGULAR	sc1100	DLS.				
Normal	Scho	ol.				
Number of teachers						17
Average number of pupils belong:	ing					286
Average attendance	•			•	•	280
Latin and H	Tigh .	School	ols.			
Number of schools						12
Number of teachers						269
Average number of pupils belong	ging					6,998
Average attendance			•			6,587
Grammar	Sche	ools.				
Number of schools		_				62
Number of teachers					•	1,128
Average number of pupils belong						45,291
Average attendance						41,923
Primary	Scho	ols.				
Number of schools						711
Number of teachers					•	716
Average number of pupils belong	inc	•	•	•		33,296
Average attendance				•	•	29,523
Average attendance	•	•	•	•	•	20,020
Kinder g	jarter	ıs.				
Number of schools						99
Number of teachers	•		•			185
Average number of pupils belong			•		•	5,301
Average attendance			•	•	•	4,046

SPECIAL SCHOOLS.1

Horace A	Iann S	chool	for	the I	Deaf.	
Number of teachers .			-		-	15
Average number of pupi	ls belo	noing				137
Average attendance .						122
ii. einge mas-mas-						
	Evenin	g Sch	ools.	2		
Number of schools .	•					19
Number of teachers .						282
Average number of pupi	ils belo	nging				9,171
Average attendance .						6,837
Even	$ing \ Dr$	awing	Sch	ools.		
Number of schools .						6
Number of teachers .						32
Average number of pupi	ls belor	nging				647
Average attendance .						460
Spe	ctacle 1	sland	Scho	ol.		
Number of teachers .						1
Average number of pupi	ls beloi	nging				7
Average attendance .						7
-	pecial (
Number of classes .	•	•				7
Number of teachers .						7
Average number of pupi						94
Average attendance .						74

¹There are forty-six Manual Training Schools and thirty-six Schools of Cookery, but as the pupils of the regular public schools attend them they are not included in these tables.

² Five of the Evening High Schools are organized in two divisions, Division I. holding sessions on Monday, Wednesday and Friday evenings; Division II. on Tuesday and Thursday evenings. Thus there are practically two sets of pupils and but one set of teachers. For statistical purposes, the two sets of pupils are added together, while the teachers are counted but once.

RECAPITELATION.

•		110111					
Number of schools:							
Regular							885
Special 1	•		•	٠		•	34
Number of teachers:							
In regular schools							2,315
In special schools 1	•		•			•	337
Average number of pupils	belo	nging	:				
In regular schools							91,172
In special schools ¹	٠			•	•	•	10,056
Average attendance:							
In regular schools							82,359
In special schools 1							7,500

The annual report of the School Committee usually consists of a review of the more important matters that have engaged the attention of the Board during the year that it covers, with such comments and suggestions relating to the school system in general as seem opportune and useful. This year, however, your committee find that the recently issued report of the Superintendent has so fully covered this field that there is little, if anything, to add to what has already been said by him.

Previous to the reorganization of the School Committee in 1875, Boston, with its 342,000 inhabitants, administered its school affairs through a Board consisting of one hundred sixteen persons. At the same time the School Board of London, with a population of over 3,000,000, numbered but fifty members, and Birmingham, with approximately the same population as Bos-

¹ Special classes included.

ton, had a Board of but thirty. In the spring of 1875. an act was passed by the Legislature providing that at the annual election occurring in that year twentyfour persons, inhabitants of the city, should be elected to constitute, with the Mayor as chairman ex officio. the School Committee. One of the reasons assigned for this change was "to facilitate the transaction of business," a remark which perhaps refers to delays occasioned by the absence of a quorum, which not infrequently made postponements of the meetings of the former Board necessary. In 1885 an act was passed amending the City Charter, and providing, among other things, that the Mayor should not be a member, nor preside at any of the meetings, nor appoint any of the committees of either the Board of Aldermen or of the School Committee. Since then, until the present year, this organization has remained undisturbed, and eight persons have been elected annually to serve on the committee for a term of three years, excepting in infrequent cases when the death or retirement of a member necessitated the election of a successor for the remainder of an unexpired term.

The present Board of twenty-four members has therefore existed thirty years, in which time it has initiated many reforms and accomplished much for the advancement of the system as a whole. Perhaps a word of praise may be said of the faithful and unselfish service rendered by men and women of great ability and high ideals who have served upon the School Committee during this period from a sense of civic duty, and often at a considerable sacrifice of their personal interests. The appreciation of their fellow-citizens has not infrequently been expressed by repeated re-elections,

and one of our number this year completes a service upon the School Committee of this and of a neighboring annexed municipality extending over twenty-two years, of which the last fifteen have been consecutive. This long service has been marked by untiring and zealous effort, and by a sincere desire to advance the interests committed to his charge.

Under the new law (Chap. 349, Acts of 1905), at the municipal election held in December of the present year, two members were elected to serve for a term of three years, two for a term of two years, and one for a term of one year, and thereafter at each annual municipal election there are to be elected, for the term of three years, so many persons as may be necessary to fill the places of the member or members whose term or terms are about to expire. Thus the elective system still continues, although an effort was made to induce the Legislature to establish a committee whose members should be appointed by the Mayor.

APPLICATION OF MODERN BUSINESS METHODS TO EDUCATIONAL ACTIVITIES.

In this era of great business and financial enterprises, the success of which depends in many cases upon superiority of output, economical administration, and elimination of waste, it seems pertinent to consider whether some, at least, of the methods adopted by successful corporations could not be employed to advantage in our school system. In other words, are all the by-products of our schools, so to speak, utilized to the fullest possible degree; is our administrative machinery economical and efficient, and does our product meet the requirements of the community which absorbs each year thousands of boys and girls from the public schools, each of whom must find a place in domestic, business or professional life? If this product were such as to come into direct and open competition with the goods from other markets: were its value a concrete thing that could be weighed or measured by accepted standards; could we know how much it cost to produce each of its units, the problem of an efficient and economical management of the school system could easily be reduced to a mere mathematical formula: but it goes without saying that such a thing is impossible. We can, however, arrive at a more or less definite conclusion, aided largely perhaps by the experience of other cities, as to whether our administrative methods are reasonably sound and efficient.

Everyone is in agreement that certain fundamental educational training is essential. A child should be taught to read, to write, to spell, to perform certain elementary processes in arithmetic, and to have some knowledge of grammar, geography, and perhaps be acquainted with the main facts of history, especially of the United States. The law of the State requires that every child between the ages of seven and fourteen years shall attend school. The law also provides that certain subjects in addition to those named, such as bookkeeping, drawing, music, manual training, foreign languages, ethics, the elements of the natural sciences, etc., shall, or may be, taught to an extent and thoroughness not definitely prescribed, and that opportunities for high and evening school instruction shall be provided under certain defined conditions. It then rests upon the school authorities to work out their own salvation with the financial means placed at their disposal.

From time to time this situation presents itself: The cost of the schools exceeds, or threatens to exceed, the appropriation. It is alleged on the one hand that the administration of the system is needlessly extravagant — too many fads and frills — and on the other, that the schools are what the public demands, and that their cost cannot be reduced without serious injury to the system and great detriment to the community. If expenses must be cut, the first thought is apt to be what can be saved in the compensation of the teachers, because this item represents about 75 per cent. of the total expenditure, and a saving here is immediate, tangible and elementary in its simplicity. A cut of 5 per cent. produces so much gross saving; a 10 per cent. reduction doubles this amount, and so on as far as figures go, making it exceedingly easy to cut the coat to fit the cloth.

It may also be suggested that certain departments are needlessly costly, and could be discontinued without serious injury to the system as a whole. Beyond this point we rarely go. In some way the crisis is tided over, and we continue as before, adding, from time to time, a little here, a little there, to our expense account in improvements and extensions, not always because these things are urged by teachers or those employed in the system, but because they are demanded by the community, or forced upon us by the growing complexity of modern life. A railroad manager knows, for exam-

ple, within a comparatively narrow margin, what percentage of his gross or net receipts should go for operating expenses. If that rate be exceeded there is extravagance. If it be unduly diminished the physical condition of his road is being impaired. We know only that the average cost per pupil varies from year to year, with a distinct tendency to advance. We may not be able to tell just what it should cost in dollars and cents to instruct children in any given subject, nor what the flat returns are from that instruction, as it eventually benefits or fails to benefit the community at large, but a study could be made of the several departments under our charge, and an estimate formed of what they accomplish of real value to the system as a whole. Such studies or investigations carried on carefully and persistently for a series of years should prove of material assistance in the determination of future policies. Why should not a careful examination of the units of our system yield valuable information? We now have sixty-four grammar schools. The average cost per pupil in the grammar schools for the last financial year was \$34.72. Now if this average cost is largely exceeded in certain schools, what is the reason for it, and is it a good and sufficient reason? The great steel corporation carefully ascertains the cost of production at its various plants, and insists upon the reduction of unnecessary expense wherever it may be discovered, and its methods in this respect could well be applied to school administration problems.

To illustrate: Suppose it be found that the cost per pupil in a certain school largely exceeds the average

cost in other schools; does this not indicate that some local economies might well be effected? Of course a considerable variation might properly exist owing to the fact that more teachers in one district than in another. because of long service, are drawing the maximum salary of their rank, and, if such be the case, there is no more to be said: but other and less satisfactory reasons may be operative. The coal consumption may be excessive; there may be an undue number of special assistants and temporary teachers; the organization itself may be extravagant and wasteful where it should be efficient and economical; or a variety of causes may operate to bring about an excess of cost, all of which may be corrected under proper methods of inspection and control. Of course the location of the day-school plant is fixed; but, so far as the evening schools are concerned, it might be found that the occupancy of one building in preference to another in the same neighborhood was economical or the reverse. It is true that the adoption of methods of this general character, with others which would naturally follow, would in themselves involve considerable expense: but we believe the results which might reasonably be expected from them would be of sufficient value to justify any reasonable expenditure in this direction.

A great deal of attention has been paid for years to improving methods of instruction and discipline with a view to increasing the educational efficiency of the schools, and no one questions that this time and effort have been well expended. Investigation and comparison of methods of organization as illustrated in the different schools and departments of the system,

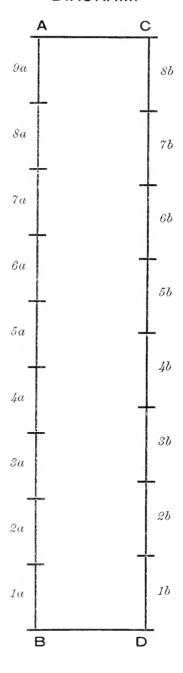
continued systematically from year to year with particular reference to cost, should be equally productive in a more material way.

GROUP SYSTEM OF PROMOTION IN PRIMARY AND GRAMMAR SCHOOLS.

The public school system is not infrequently compared to a great machine fed by a continuous stream of children who pass more or less automatically through its various convolutions, and emerge in a prescribed number of years equipped with a greater or less amount of knowledge. It is criticised because groups its pupils into too large classes and pays too little attention to the needs of the individual; vet the constant tendency is towards smaller classes, and progress in this direction is checked only by financial considerations. It costs the city a certain amount for each pupil who passes through the school system. beginning with the kindergarten and ending with the Latin, high or normal school. The longer a pupil remains, the greater the expense. If his passage can be shortened without detriment to himself, the greater the gain both to the community and the child.

A plan to accomplish this end, which your committee believe could be put into operation to the advantage of the system and the pupils as well, was suggested last year, the salient features of which, from a financial point of view, may be summarized as follows:

DIAGRAM.



Let the line A B represent the amount of work outlined in the established course of study. If this is divided into nine equal parts, each division, Ia, 2a, etc., will represent the work done in one year. The recommended plan proposes that the more able pupils shall be kept in separate groups and allowed to work faster than the slower ones. At the end of the first year such pupils will have completed more than the slower section as shown by the distance marked Ib on the line C D. By the end of the first year they will have completed the regular first grade work and made some start upon second grade work. If kept in a separate section during the second year, they can complete the regular second grade work and make a larger advance upon third. Since the purpose is to have them gain one year in eight, their entire course is represented by the line C D, and the amount of gain will thus average five weeks per year.

After such a system is in full operation, there will be in each room two groups of approximately twenty-five each; for example, 6a and 6b, or 6a and 5b. From this condition various advantageous results arise:

Under the proposed grouping neither the point of beginning nor the point of ending with any particular group is arbitrarily determined in advance. Neither is the amount of work determined for the purpose of fitting the average pupil, nor by any exigencies of administration, but solely by the educational needs and educational possibilities of the particular group under consideration. Each teacher may begin with each group of children where she finds them, give them the instruction fitted to their needs, and take them as far as they can go with profit.

The division into grades is determined by financial conditions, and the number of pupils assigned to each teacher has been set at fifty. Under the proposed plan, when once fifty children have been assigned to a room, they may be made into groups, with no other consideration than that of placing together those who can most nearly progress at the same rate of speed.

The plan provides for a close assorting into groups containing pupils of the same ability and rapidity of acquisition. At any given time of the year, instead of nine grades, a school will have its pupils assigned to at least seventeen groups, having different degrees of advancement. This provides many easy

gradations, renders possible transfers from group to group, and avoids the tremendous loss often entailed by compelling a pupil to repeat an entire year's work. For example, a pupil in 4b doing work which, though fair, is not sufficient to enable him to proceed with 5b, will not be required to repeat the entire work of 4b, but will be promoted to 5a. This will transfer him to another teacher and place him with a class working at a slower rate of speed. Furthermore, he will repeat in 5a the latter half of the work covered in 4b, an amount of review sufficient to enable him to maintain himself.

The plan recognizes the principle that some children can with profit go faster than others, and provides a way by which the abler pupils may shorten the time in the grammar school by one year. Its adoption will furnish a satisfactory solution of the question of reducing the number of grades to eight.

Furthermore, it should be emphasized that this gain of one year made by the bright pupils is distributed over the entire course; that is, the pupil does all the work at a slightly increased rate of speed.

In so far as it enables pupils to complete the course in less time, the plan would save money for the city. It is impossible to say what proportion of the amplis will be able to shorten the time in the grammar school. In some districts the proportion will be much higher than in others, but by the flexibility of the system each school could adapt its work to the needs of its pupils. Observation of schools working under the system leads to the belief that after it has been in operation long enough to enable pupils to profit by its advantages through their entire school course, at least 60 per cent. of the pupils will cover the work in eight years.

Undoubtedly the saving of a year will be of much financial advantage to parents upon whom the burden of sending their children to school rests heavily. This saving of a year will increase the number of grammar school graduates by enabling some of those who can attend but eight years to complete the entire course. The bulk of experience the country over has shown that the system, once established, is practical and frective.

A fuller and more complete explanation of the foregoing plan and of its educational advantages appears in the supplement to the report of the Superintendent for 1904, pages 73–82.

The average cost per pupil per annum in the grammar schools during the past six years has been \$34.69. Had 60 per cent. of the 4,387 pupils in the ninth grade last June been able to save the one year's time contemplated by the plan above described, the city would have gained about \$91,000. This gain would be an annual one as successive groups of pupils pass through the grades, and would increase in proportion with the natural growth of the school system. As to the estimate of the number of pupils who would profit by this plan, it may be said that in another city where a somewhat less desirable and flexible scheme to the same end is in operation, experience has shown conclusively that the saving is at least as great as this estimate.

COST OF BOOKS, DRAWING MATERIALS AND STATIONERY.

A study of certain regular expenditures that bear, or should bear, a close relation to the number of pupils in the schools, should yield valuable results in determining whether or not the cost of a given item or items is at a normal rate from year to year. To illustrate: The cost of books, drawing materials and stationery would naturally vary according to the number of pupils, but an examination of this item for a period of five years discloses some interesting features, as shown by the following table:

YEAR.	Total Cost.	Total Pupils Day and Evenlng.	Increased Expense in Per cent.	Increase in No. of Pupils in Per cent.
1900-01	\$85 ,3 68 28	88,852	5.8	2.5
1901-02	94,728 91	91,271	11.0	2.7
1902-03	105,987 89	94,871	11.9	3.9
1903-04	71,131 69	99,133	* 32.9	4.5
1904-05	72,096 87	102,725	1.4	3.6

Books, Drawing Materials and Stationery.

It appears that for the first three years covered by the above statement the cost of books and stationery increased in an ascending ratio largely exceeding the gain in pupils. In 1903–04 this item shows a very large decrease, followed in the succeeding year by a small increase. It is evident that a great saving was made in one particular year, and doubtless for good reasons, but if all items of expenditures could be graphically portrayed by charts, any marked and abnormal variation in the curve showing the expenditure for any particular purpose would readily be noted, and the reason for it could then be ascertained, thus tending to ensure a harmonious increase or decrease in all departments.

We would recommend that all text, reference and supplementary books be charged to the principals of the schools or districts concerned, and not to individual teachers. This plan would, we think, not only simplify the accounts, but would place the responsibility for such material where it belongs and tend to economy, as the principals would then be able better to watch the stock of books on hand in their

^{*} Decrease.

respective districts, and a surplus in the hands of one teacher could be more readily transferred to meet a demand on the part of another instructor in the same district.

COMPENSATION AND EFFICIENCY OF INSTRUCTORS.

It is to the manifest advantage of each individual teacher that the highest degree of efficiency in the force be maintained from purely selfish motives, if for no higher reason. The employment of incompetent or inefficient instructors who cannot properly govern and instruct a full quota of pupils tends to increase the number of teachers employed, and, indirectly, to decrease the compensation of all those employed in the service. As the late Mayor Collins once said, the city does not own the purse of Fortunatus, and as the amount that can be expended for the salaries of instructors is, and always will be, subject to pretty well defined limitations, the more there are employed, the less the individual will be paid. On the other hand, too few teachers means a serious impairment of the service rendered the pupil, and a consequent deterioration in the product of the system.

It is probably impossible to prevent surplus instructors, or to quote the language of the regulations, "teachers for whose continued service no special necessity exists," from accumulating in the system to some extent, but every regular grade teacher appointed costs the system at least \$552 a year, and a distinct saving would result from transferring to the first available vacancy a teacher already in the service who is not actually needed in the place she occupies, instead of employing a new one.

As an example of how a slight and apparently trivial change grows in a short time to large proportions, the following illustration is given:

Special Assistants.

On May 27, 1902, the rules were amended to provide that special assistants might be appointed in any grade, grammar or primary, the previous rule permitting such appointments only in the first grade. The estimated expense of the change was from \$8,000 to \$10,000. The actual expense has been as follows:

YEAR.	Number of Regular	Increase over	COST OF SPECIAL ASSISTANTS.				
	Grade Teachers.	Preceding Year.	Grammar.	Primary.	Total.		
1897-98	1,331	47		\$7,414 00	\$7,414 00		
1898-99	1,381	50		7,981 50	7,981 50		
1899-1900,	1,406	25		9,497 50	9,497 50		
1900-01	1,501	95		11,035 50	11,035 50		
1901-02	1,586	85		10,347 25	10,347 25		
		Av. 60					
1902-03	1,653	67	\$1,388 00	12,501 00	13,889 00		
1903-04	1,674	21	7,398 50	11,423 25	18,821 75		
1904-05	1,710	36	17,530 64	16,209 25	33,739 89		
		Av. 41					

The average number of permanent teachers appointed during the past three years is nineteen less than for the preceding five years. If this number of teachers were appointed, say on their second year, the expense would be \$11,400 for one year. Deduct this amount from \$33,739.89, and the remainder, \$22,339.89, would appear to be the present cost of special assistants as compared with \$10,000 or \$11,000 four years ago.

COST PER PUPIL.

The following statement shows the cost per pupil in the various grades of schools for the year 1904-05 as compared with 1894-95, ten years previous:

	IIIgh.	Grammar.	Primary.	Kinder- garten.	Evening.	Evening Drawing.
1894-95	\$82 91	\$29 98	\$19 73	\$25 40	\$ 10 59	\$ 26 09
1904-05	95 91	34 75	28 64	29 18	11 81	29 39

Expressed in percentages, these increases show a wide variation, which is not fully to be accounted for by changes in the schedule of salaries of instructors, for example:

	High.	Grammar.	Primary.	Kinder- garten.	Evening.	Evening Drawing.
Increased cost per pupil	15.7	15.9	45.2	14.9	11.5	12.6

It would therefore appear that while the cost per pupil in the high and grammar schools and kinder-gartens has increased at a nearly uniform rate, the cost per pupil in the primary schools has increased to a far greater extent. It would also seem to indicate that in the development and extension of their work the evening schools and evening drawing schools have hardly kept pace with the day schools.

EMPLOYMENT OF CLERKS IN HIGH AND GRAMMAR SCHOOLS.

The exercise of a false economy usually results in an ultimate cost far greater than would be caused by a business-like dealing with the proposition involved. If a \$1,000 employee is made to devote his time to work that can be done equally well by one who is paid but \$500, the waste is considerable, not alone so far as the direct expenditure of money is concerned, but also in the indirect loss to the employer of the benefit of the growth in skill and ability of the better paid man who can do ordinary routine work no better than the person drawing half his salary. The head-masters of our high schools are paid \$3,780 per annum. The salary of a grammar master ranges from a minimum of \$2.580 to a maximum of \$3,180. Obviously the time of these principals is far too valuable to be spent in the preparation of routine reports and correspondence, nor is it true economy to require such service of their assistants who could be far more profitably employed in teaching. The growing complexity of the system results in constantly increasing demands for reports and statistics. Requirements of this nature, which are neither unnecessary nor unreasonable, never diminish, but tend always to increase in number. The principals of the various schools, especially the head-masters of high schools, have long felt that little if any part of their time should be devoted to merely clerical work, and yet of necessity they have been obliged to spend time and effort in this direction that could far better be expended in the discharge of administrative duties. There are now twelve high and Latin schools, seven of which have severally more than five hundred pupils in attendance, and two more than one thousand. clerical work connected with the administration of such schools, especially under the elective system of study now in effect, is enormous. Yet not one of these

schools has a clerk to attend to such matters. One principal who strongly urged that his school be allowed a matron intimated that such an appointment would probably result in certain of his instructors giving more time to teaching and less time to making out reports and statistics.

Would it not be true economy to employ a clerk in each of these schools where instructors are necessarily required to render clerical service, and thus free principal and teachers for other and more important duties which they are really employed to discharge? If it should then be discovered that instructors whose time is not fully occupied are serving in any school, such readjustment should be made as might be found necessary by transfers or reassignment of duties. The adoption of such a plan would tend to reduce the expenditure for salaries of instructors by enabling those already employed to devote their whole time to teaching.

The same argument applies with scarcely less force to the grade schools. There are now sixty-four grammar districts. In ten of these districts there are severally from 700 to 1,000 pupils, in 38 from 1,000 to 1,500 pupils, in 10 from 1,500 to 2,000 pupils, and 6 have more than 2,000 pupils. The regulations prescribe that the principals shall have special charge of the ninth grade; shall give an average of at least two hours a day to instruction; shall visit the primary schools and kindergartens under their charge at least once a week, and shall devote the remainder of their time to the general duties of their office. In one of these districts it would take the master over seven hours to make a call of but ten minutes on

each class in his main building, and if he should spend that time in each room occupied by grammar and primary classes and kindergartens throughout his district, and began his visits at 9 o'clock in the morning, he would not reach the last room until 7 o'clock that night, assuming that he kept steadily on the move and that each class remained continuously in session awaiting his call. The district used in this illustration, while in one of the suburbs, is territorially very compact, and with but short distances separating the various school buildings. The administration of such districts is a task demanding tact, skill, and efficiency, and these qualities, which our principals possess in such large measure, can be better exercised if they are relieved of simple, routine work that takes time rather than a high degree of intelligence for its execution.

GAS AND ELECTRIC LIGHT.

Twenty years ago the cost of lighting of school buildings was an insignificant item, but of late years the cost of such service has rapidly increased. Last year there was expended for gas and electric lighting more than \$28,000, and that amount will probably be considerably exceeded this year. Here again the trouble and expense of putting into operation a system whereby the cost of this item in the various buildings, making due allowances for size, location, and whether or not occupied by evening classes, could be given critical and continued examination, would probably be fully justified, especially with relation to the use of electricity, for there is a certain "fatal facility" in turning on an incandescent bulb that tempts even the most careful

person to an unnecessary use of this modern convenience. A morning visit to a class occupying a well lighted room having an easterly exposure in one of our school buildings found the window curtains closely drawn to exclude the rays of the morning sun, and the pupils pursuing their tasks by the aid of the full complement of electric lights—at least sixteen—with which the room was equipped. The corridors of the same building were also unnecessarily lighted by electricity, and here the lights turned off by the surprised visitor were found, on his return, to have been again turned on by unseen hands. An instance such as this of petty waste may seem a trifling thing, and yet the change of a mere fraction of a cent in rate diverts the course of mighty streams of traffic, and one enterprise fails and another succeeds because the latter practices small economies while the former does not. We are informed that in a large building in another city it has been found that a distinct saving has resulted from the employment of a man whose sole duty it is to patrol the various rooms and corridors, turning off, as he goes his rounds, each light that is not actually needed for some definite purpose. This plan may not be adapted to our conditions, but it shows how the problem of securing economy in the use of electric light has been met elsewhere.

FUEL.

It would seem desirable to place a direct responsibility in the furnishing of fuel upon the Schoolhouse Custodian, and to require that officer to exercise a careful oversight of its consumption in each building. The production of a maximum number of heat units from a given quantity of coal depends largely upon

careful firing, and as not all janitors are equally skilled in this portion of their duties, a comparison of the methods of those who succeed in sufficiently heating their buildings with a minimum quantity of coal might be utilized for the benefit of all. During the last financial year there was sent to the different schools 21.386 tons of coal which cost \$123.870.48. Ten years ago the average consumption of coal per pupil was 363 pounds. Last year the average consumption was 416 pounds per pupil. This increase, no doubt, is largely due to the adoption of modern methods of heating and ventilation, but it would be well to adopt a system that would disclose whether or not the consumption in any particular building is excessive. If ample provision were made to house in each school building a full year's supply of fuel, there would undoubtedly be a considerable saving of labor and expense, a saving that would continue from year to year as long as the building is in use, and thus justify a slight additional initial expense in the providing of such accommodations.

SUMMARY.

These are merely superficial comments intended to indicate what might be accomplished by the adoption of a system of comparison and reference by which the comparative and actual cost not only of educating a pupil, but also of the various departments, could be ascertained and traced from year to year, thus aiding in determining whether the cost is justified by results, and whether the expenditure for any given purpose bears a just proportion to the cost of



the whole system, and, further, whether such cost is increasing or decreasing, and at what rate.

If our school system is to remain a living, vital force; if it is to accomplish fully the purpose for which it was created and is maintained, it must conform to the two essentials governing the conduct of all successful modern business enterprises—economy and efficiency.

SHRINKAGE IN NUMBER OF PUPILS BETWEEN THE PRIMARY AND HIGH SCHOOLS.

It is perhaps generally assumed that most of the pupils who enter the primary schools ultimately are graduated from the grammar schools, and, in view of the striking and interesting growth of our high schools during recent years, that a very considerable number continue in the system until the completion of a three or four years' course in the high schools. How far this is from the truth a glance at the chart upon the opposite page will disclose. This chart first appeared in another report (Document No. 3. 1905, page 65), and was plotted to show the loss in attendance during the progress of a body of pupils who might have entered the first grade of our primary schools in 1892, and have been graduated at the end of a three years' course in the high schools in 1903. The figures, which were taken from the official statistics, show clearly the loss in attendance which here takes place after January, 1897, when, in the sixth grade, many pupils reach the age when school attendance is no longer compulsory, and enter industrial life

If this chart correctly reveals the real situation, it certainly indicates the importance of concentrating the most earnest and intelligent study on means and methods by which those pupils who do not progress beyond the grammar schools may acquire such essentials of education as will best fit them to meet the conditions that must inevitably confront them at an early age. The voice of the industrial and commercial world sounds no uncertain summons to the boys and girls of to-day, and many of them must obey at an early age. If the boy born in the country responds to the call of the city, still more does the urban boy feel the influences that draw him from school to the inexorable necessity of gaining a livelihood in an era of sharp competition. The public school system that can best equip him for his place in life is what he has a right to demand, and upon us rests the responsibility of meeting his reasonable requirements.

APPROPRIATIONS.

Under the present system of making appropriations for meeting the current expense of school maintenance, which is based upon the taxable valuation of the city, and not on the number of pupils, it is practically impossible to frame an annual budget in pursuance of a definite policy of developing the school system along certain lines for a number of years. If through a marked increase in the average valuation of the city during one period the school appropriation is swelled sufficiently to allow some little extension and expansion, a lower rate of increase in subsequent years, making it necessary to retrench and curb expendi-

tures to meet such conditions, emphasizes the difficulty of regulating expenditures to conform to appropriations depending upon changes in property valuations. The school population grows from year to year without any reference to changes in the taxable valuation of the city, and if the increase in valuation fails to keep pace with the additional number of pupils, it follows that the amount to be expended for the benefit of the individual pupil decreases, and that the efficiency of the whole system, as measured by expenditures, is also diminished. If the appropriation increased in the same ratio as the number of pupils, about \$30,000 additional would have been available for each of the two last years, making a total of \$60,000 to meet the increasing cost of the school system.

RULES AND REGULATIONS.

It will of course be necessary to recast the present rules of the Board to conform to the new conditions that will attend the reorganization of the School Committee in January next.

We would suggest that at the same time it would be highly desirable to rearrange the regulations which relate to the general conduct of the schools, and prescribe the duties of instructors and other persons in the employ of the Board not included under the designation of officers. The present regulations, admirable in many respects, and the fruit of long experience and careful study, are not well arranged, nor in all respects harmonious. They have been subjected to so many amendments that the original pattern upon which they were framed has largely disappeared, and diligent search is sometimes necessary before those

who consult them, and upon whom they are supposed to be binding, can be altogether positive of some of their requirements. It would add largely to the convenience of all persons in the service having occasion to refer to them if these regulations should be rearranged, codified, and, if possible, simplified.

Another suggestion in this same connection we deem worth the making. When the Board has once adopted a satisfactory set of rules and regulations it should, so far as possible, abstain from changing them, and, more important still, insist that they shall be implicitly observed. The practice in past years has tended to so many changes that few persons in the system have been able to keep well informed with regard to them. For example, in one year the rules were amended twenty-three times, in another year twenty-five times, and so on. The natural result has been to minimize their importance and to decrease the respect in which they are held. Any regulation once adopted should be impartially and consistently enforced, and violations thereof should not be allowed to pass unnoticed and unreproved.

Such a policy is peculiarly essential in Boston because of the manner in which its school system has developed. In former years, largely because of the annexation of neighboring municipalities each jealous of its own school traditions, and under the old system of practical school control by small division committees, many of the schools were in effect "petty duchies" belonging, it is true, to a general federation, but clinging tenaciously to what might be termed "ancient rights and privileges." Little by little the doctrine of centralization has prevailed, the bands

that hold the schools and districts together have been strengthened, the different units brought into close and harmonious relations, until to-day the whole system is far more homogeneous than ever before, to its great and manifest advantage.

PRIVATE SCHOOLS vs. PUBLIC SCHOOLS.

It is interesting to note that the number of children of school age, which for statistical purposes is between five and fifteen years, who attend the public schools, as compared with those of the same ages who attend the private schools, preserves a fairly constant ratio from year to year.

As the city grows in population and wealth, it is natural to expect that the number of pupils in private schools will increase rapidly, unless the public school system is performing its functions to the community in a manner to merit its respect and confidence. The following statement, however, which has been compiled from the annual school census returns for the past ten years, shows that the private schools contain about one-fifth as many children as the public schools, and that this proportion varies but little from year to year:

SCHOOL CENSUS.

Children 5 to 15 Years.

CENSUS TAKEN.	Number in Public Schools.	Number in Private Schools.	Relation of Private to Pub- lic School Membership in Per cent.	
May, 1896	58,783	12,231	20.8	
May, 1897	61,850	12,272	19.8	
May, 1898	63,493	12,681	19.9	
September, 1899	66,221	13,515	20.4	
September, 1900	69,260	14,083	20.3	
September, 1901	72,257	14,051	19.4	
September, 1902	$71,\!532$	15,601	21.8	
September, 1903	74,312	16,254	21.8	
September, 1904	75,376	16,090	21.3	
September, 1905	75,368	15,913	21.1	

The figures above presented would seem to indicate that although the public school system does not meet the requirements of a considerable number of people who for one reason or another may prefer to send their children to private schools, yet during a period of ten years there has developed no new or strong current of opinion to draw pupils from the public to the private schools.

Mr. John O. Norris, head-master of the Charlestown High School, who died June 14, 1905, was born at Chester, N. H., November 22, 1843. Mr. Norris entered the Boston service as usher in the Brimmer School in December, 1868; was appointed sub-master in the English High School in December, 1870, and as master, in the same school, was in charge of its branch in East Boston. He organized and was the first principal of the East Boston High School, and became headmaster of the Charlestown High School September 7. 1885. His useful activities were not confined alone to his school. For ten years he served as Chairman of the School Committee of Melrose, where he lived. He was prominent both as a member and as a speaker in various educational and religious clubs and associ-His absolute integrity and fidelity to duty were characteristics that added essentially to his success as a master, and potent influences in obtaining and holding the friendship and esteem of those with whom he came in contact.

Miss Sarah J. Baker, principal of the Dillaway District, died March 11, 1905. Miss Baker became principal of the Dudley School for girls (later the Dillaway School), in Roxbury, in 1861, continuing as such after the annexation of Roxbury in 1868, and was at the time of her death the senior grammar master in point of service in that position. She was the first, and for many years the only, woman holding the position of principal of a grammar district in this city, and administered the interests committed to her care with marked ability and zeal. Of refined character, dignified in

deportment, well equipped in all the qualities essential to success in her profession, Miss Baker achieved an enviable reputation for herself and her school, and enjoyed not only the affection of her pupils and teachers, but the confidence and esteem of the community whose educational interests were her constant and unremitting care. She was able to continue the work in which she so delighted until very near her end, and departed, loved, honored, and respected, leaving a record of a noble life to inspire those who knew her best.

Just as the year and the term of the present Board were drawing to a close came the unexpected and melancholy tidings of the death of Superintendent Conley, which took place on December 20. Only the day before he had been at his office, attending to the customary routine of his duties, apparently in full health and vigor. The dread summons came to him in the prime of life, when years of splendid fruition seemed to stretch before him.

Dr. George H. Conley was born in Lowell, Mass., October 11, 1853, and received his early education in the public schools of that city. He was graduated from the College of the Holy Cross in the class of 1874, and was recently honored by his alma mater with the degree of LL.D. Subsequently he attended the seminary of St. Sulpice, in Montreal, and spent some time in travel and study in Europe. He then became master of the Horace Mann Grammar School in Lowell, and was later transferred to a similar position in the Benjamin F. Butler School of that city. He was elected Superintendent of the Public Schools

in Lowell in 1883, and resigned in 1886 to become a member of the Board of Supervisors of the Boston Public Schools, to which position he was elected on March 9 of that year. On September 1, 1904, he assumed the duties of Superintendent of the Public Schools of Boston, having been elected thereto in the preceding July.

He was President of the Middlesex County Teachers' Association in 1885. For many years he was active in the work of the National Educational Association, especially in the Department of Superintendence, in which he held high office. He had been a member of the Massachusetts State Board of Education since 1893. He was lately honored by Tufts College, which conferred upon him the degree of Litt. D.

It is difficult to speak adequately of Dr. Conley's personal and educational qualities. He was a gentleman of the finest instincts, an accomplished scholar, a faithful public officer, a wise and admirably equipped educational leader.

Generous, whole-souled, and genial, always courtous in bearing, ever considerate of the rights and feelings of others, the personal attributes that win the love and respect of our fellows were his in largest measure, and beneath all there was a character of solid worth, actuated only by the highest principles of morality, honesty and justice.

He brought to the position of Superintendent sound scholarship, long experience, and the ripened judgment of a mature mind in the full zenith of its powers. His extended service as Supervisor necessarily gave him an intimate acquaintance with our public

schools, and strengthened his grasp upon the many problems that continually present themselves in the administration of a large school system. He was always easily master of his work, and his mental horizon was wide enough to enable him to discharge with unfailing skill and sagacity the manifold duties and responsibilities that rested upon him.

Respectfully submitted,

MARY A. DIERKES,

Chairman,

JOHN D. DRUM,

FRANCIS W. FALVEY.

SCHOOL DOCUMENT NO. 17 - 1906

ANNUAL REPORT

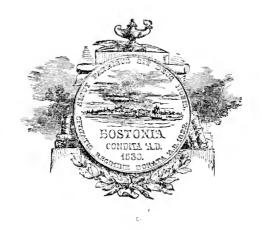
OF THE

SCHOOL COMMITTEE

OF THE

CITY OF BOSTON

1906



 $\begin{array}{c} {\rm BOSTON} \\ {\rm MUNICIPAL\ PRINTING\ OFFICE} \\ {\rm 1906} \end{array}$



SCHOOL COMMITTEE.

Term Expires January, 1908.

THOMAS J. KENNY.

WILLIAM S. KENNY.

Term Expires January, 1909.

GEORGE E. BROCK.

JAMES J. STORROW.

Term Expires January, 1910. DAVID A. ELLIS.

OFFICERS OF THE BOARD.

CHAIRMAN.

JAMES J. STORROW.

SUPERINTENDENT.

STRATTON D. BROOKS.

Assistant Superintendents.

ELLOR C. RIPLEY, MAURICE P. WHITE,

WALTER S. PARKER, JEREMIAH E. BURKE, AUGUSTINE L. RAFTER. ROBERT E. BURKE.

SECRETARY.

THORNTON D. APOLLONIO.

AUDITOR.

WILLIAM J. PORTER.

BUSINESS AGENT.

WILLIAM J. SMITH.

SCHOOLHOUSE CUSTODIAN.

MARK B. MULVEY.



REPORT.

SCHOOL SYSTEM.

The public school system of Boston comprises ¹ one Normal School, two Latin Schools (one for boys and one for girls), nine High Schools, the Mechanic Arts High School (for boys), sixty-four Grammar Schools, seven hundred nineteen Primary Classes, seven Special Classes, one hundred seven Kindergartens, one School for the Deaf, five Evening High Schools, thirteen Evening Elementary Schools, six Evening Drawing Schools, a special school on Spectacle Island, fifty Manual Training Schools and forty Schools of Cookery.

STATISTICS. 2

The following statistics are for the school year ended June 30, 1906, excepting those giving the number of children in Boston between the ages of five and fifteen years, and the number attending public and private schools, which are from the census taken September 1, 1906:

Number of children in Boston between the ages of five	
and fifteen Sept. 1, 1906	104,018
Number attending public schools, Sept. 1, 1906	77,552
Number attending private schools, Sept. 1, 1906 .	16,026
Whole number of different pupils registered in the pub-	
lic day schools during the year ended June 30,	
1906:	
Boys, 53,387; girls, 51,742 — total	105,129

¹ June 30, 1906.

 $^{^2}$ Other and more complete statistics may be found in School Documents Nos. 2 and 14, 1906.

REGULAR SCHOOLS.

Λ	Tormal	Sch	ool.							
Number of teachers .							18			
Average number of pupils	belon	ging					321			
Average attendance .							312			
Latin and High Schools.										
Number of schools .							12			
Number of teachers .							274			
Average number of pupils	belon	ging		•			7,299			
Average attendance .					¢		6,900			
Gr	атта	r Scl	iools							
Number of schools .							6.4			
Number of teachers .	Lalan		•	•	•	•	1,100			
Average number of pupils										
Average attendance .	•	•	•	•	•	•	43,601			
P^{r}	r i mary	, Sch	ools	•						
Number of schools .							718			
Number of teachers .							723			
Average number of pupils	belon	ging					33,378			
Average attendance .							29,635			
1	Ki nder	garte.	ns.							
Number of schools .							107			
Number of teachers .							200			
Average number of pupils	belon	oino			•		5,536			
Average attendance .										
11 orago weekstalle o	•		·	·			2,200			
SP	ECIAL	seno	ols.1							
Horace Max	nn Sc.	hool.	for	the De	αf.					
Number of teachers .							16			
Average number of pupils							152			
Average attendance .							138			
O										

¹There are fifty Manual Training Schools and forty Schools of Cookery, but as the pupils of the regular public schools attend them they are not included in these tables.

	E_{ℓ}	ening	Sch	iols, 1				
Number of schools								18
Number of teachers								307
Average number of pu	pils	belon	ging					10,287
Average attendance								7.484
77		T >		61.1				
		g/Dro						6
Number of schools	•	•		•	•	•	•	$\frac{6}{29}$
Number of teachers							•	
Average number of pu							•	663
Average attendance	•	•	•	•	•	٠		495
S	pecto	ucle Is	lund	Scho	ol.			
Number of teachers								1
Average number of pu	pils	helon	ging					12
Average attendance		•			6			11
27 1 0 1		Special						-
Number of classes								7
Number of teachers	•		:	•	•	٠		7
Average number of pa								91
Average attendance	•	•	٠	•	•	•	٠	71
	R	ECAPIT	ULAT	ON.				
Number of schools:								
Regular .							902	
Special ² .							33	
Total .	•	r	•	•		٠	٠	935
Number of teachers:								
In regular school	\mathbf{s}					·)	375	
In special schools	3 1							
Total .								2,735

¹ The Evening High Schools are organized in two divisions, Division I. holding sessions on Monday, Wednesday and Friday evenings; Division II. on Tuesday and Thursday evenings. Thus there are practically two sets of pupils and but one set of teachers. For statistical purposes, the two sets of pupils are added together, while the teachers are counted but once.

² Special classes included.

Average number of pupils	belo	nging	:			
In regular schools					93,189	
In special schools ¹					11,205	
Total .				•		104,394
Average attendance:						
In regular schools					84,651	
In special schools 1					8,199	
Total						92,850

A RETROSPECT.

To give even a brief outline of what has been accomplished or attempted during the year 1906, under the reorganized Board, necessarily involves a repetition of much that has already been referred to elsewhere, especially in the annual report of the superintendent, issued during the month of July.

The year may perhaps properly be termed a time of reconstruction, beginning a sixth period in the history of the public schools of this city. A brief reference to the five preceding periods may not be without interest before proceeding to enumerate briefly the main features of the work of the past year.

From 1635, when the Public Latin School was established, until 1789, the schools were under the control of the selectmen of the town, or, perhaps more correctly, under the voters assembled in town meeting. The latter fixed the salaries, frequently elected masters, and in other ways took an active part in the management, although minor matters were referred to the selectmen.

¹ Special classes included.

From 1789 until 1822, the schools were in charge of a committee consisting of the selectmen, nine in number, and one citizen from each of the twelve wards. This was the School Committee, although in 1818, when primary schools were established, a special committee of thirty-six members was appointed to take charge of them. This primary school committee acted entirely independently of the School Committee, and gradually increased in size, until in 1854 it reached the unwieldy number of one hundred and ninety-six members. In January, 1854, it went out of existence, the School Committee then taking charge of the primary schools together with the other grades.

In 1822, when Boston became a city, the city charter declared that the School Committee should consist of the mayor, the board of aldermen, and one member from each ward elected annually.

In 1835 the city charter was so amended that the School Committee was composed of the mayor, the president of the common council, and twenty-four other members, two from each ward elected annually.

In 1854 the charter was again revised, and provided for a School Committee consisting of the mayor, the president of the common council, and six members from each ward, one-third of these to be elected annually for a term of three years.

In 1875 the number of wards had been increased by the addition of Roxbury, Charlestown, Dorchester, West Roxbury, and Brighton, thus enlarging the School Committee to the number of one hundred and sixteen.

By a special act of the Legislature, approved May 19, 1875, the School Committee was reorganized, and was

made up of the mayor, who was chairman, ex-officio, and twenty-four members elected at large by the people, eight of these elected annually for a term of three years.

By an act approved May 27, 1885, the mayor ceased to be one of the School Committee, thus leaving it composed of twenty-four members elected as before.

This organization continued until January 1, 1906, when a committee of five was established, the members being elected at large, and for three-year terms.

The following brief outline shows the changes of organization of the School Committee:

1635-1789.	Selectmen 9
1789-1822.	Selectmen, and one from each ward . 21
(1818-1)	1854. Primary School Committee, 36 to 196.)
1822-1835.	Mayor, aldermen, and one from each
	ward 25
1835-1854.	Mayor, president of common council,
	and two from each ward 26
1854 - 1875.	Mayor, president of common council,
	and six from each ward (Brighton
	and Charlestown wards, three each), 74 to 116
1875–1885.	Mayor, and twenty-four elected at large, 25
1885-1906.	Twenty-four elected at large 24
1906.	Five elected at large 5

The five distinct periods through which the schools have passed may be divided as follows:

From 1635 to 1684, when there were no elementary schools for the children of the poor, but only the Latin School for fitting boys for college.

The second period, from 1684 to about 1740, when in addition to the Latin School writing schools were established.

The third period, from about 1740 to 1847, when the writing schools were gradually developed into the grammar schools under what we know historically as "the double-headed system," the pupils in each school being half the day under the direction of the writing master, and half the day under the supervision of the grammar master.

The fourth period, from 1847 to 1876, a period of reconstruction and enlargement, of radical changes, and the inauguration of system.

The fifth period, from 1876 to 1906, when especial attention was given to the operation of the existing system, and the work of the schools was unified by means of supervision not only by the members of the board of supervisors, but through directors and principals, many of the latter practically giving up teaching, as their supervisory duties required their entire time.

The sixth period, of which one year has been completed, has been one of reconstruction and development of a system of efficient administration, under which the executive officers of the Board have been clothed with larger powers and held to a more rigid accountability for results obtained. The authority exercised in the past by the twenty-nine sub-committees and by the individual members of the School Committee has disappeared, and the Committee now acts as a Board, endeavoring constantly as such Board to make suggestions for the betterment of the system and to formulate general policies for improving the school administration, but taking care that these shall be communicated to the superintendent and other officials in positions of high authority, and leaving to them the task of devis-

ing the best means for putting the suggestions and policies into practical operation.

Regular meetings of the Board have been held on each successive Monday during the year except in July and August, and additional meetings have been held when necessary, making the total number of meetings fifty-seven. Each member of the Board has held an office hour in the School Committee building one afternoon in the week except during the vacation period, thus affording the public ready and direct access to the central authority of the school system, should occasion require. This opportunity to talk personally with members of the Board has been largely availed of by parents, teachers, and other persons concerned with the working of the school system, and has been of much advantage in dispelling the idea that under the new Board of five members the public at large would not have the same opportunity to come into that direct relationship with its representatives that it enjoyed under the former organization, when the Board consisted of twenty-four members.

One of the criticisms directed against the large Board was that it transacted its business largely through a system of sub-committees, whose meetings were held in private, and that many decisions vitally affecting the interests of the school system were arrived at in these sub-committee meetings, and, if necessary, confirmed by formal votes of the full Board without adequate and sufficient explanation of the reasons governing such action. The new Board has no sub-committees, its meetings are open to the public, and are always attended by representatives of the press. The superintendent is always present and has the same

right as a member of the Board to offer motions, and to enter into the discussion of any subject. The proceedings of the Board are regularly published in full in one of the daily papers. It does occasionally hold what are termed executive sessions, nearly all of which have been held for the sole purpose of discussing questions of discipline or matters personally affecting members of the teaching force, which justice to the individual concerned requires should not be considered in public. The rules provide, however, that no votes shall be passed in executive sessions, and this provision has never been violated.

FINANCES AND ECONOMIES.

On assuming office, the Board found itself confronted with the necessity of giving immediate and careful attention to its financial situation. At its first meeting a statement was presented by the auditor showing an estimated deficit for the year ending January 31, 1906, of \$52,000. The full amount of this deficit was occasioned by the former Board in delaying the payment of bills and withholding the salaries due officers and teachers. With the cooperation of the Mayor and the assent of the Schoolhouse Commission the Board secured the passage of an act by the Legislature which authorized it to appropriate the sum of \$60,000 for the general support of the school system, decreasing to that extent the usual appropriation of twenty-five cents upon each \$1,000 of the average valuation of the city to be expended for repairs and alterations of school buildings under the direction of the Schoolhouse Commission.

During the entire year the Board has scrutinized its expenditures with great care, and has instituted many economies which, in the aggregate, have amounted to a considerable sum, and enabled it to avoid a further deficit in the school expenditures and to close its first financial year with an unexpended balance of \$19,604.34, as shown by the following statement:

Appropriations available.				\$3,471,100 00
Expenditures:				
Salaries of instructors .	•	\$2,821,314	52	
Salaries of officers .		86,929	49	
Salaries of janitors .		227,268	09	
Fuel and light		$135,\!575$	11	
Supplies and incidentals		180,408	45	
Total expenditures .				3,451,495 66
_				
Balance unexpended			•	\$19,604 34

During the past year the amount paid the teachers was increased over the preceding year more than \$144,000; the cost of fuel and light was decreased nearly \$28,000, and of supplies and incidentals almost \$10,000. The Board now proposes to transfer to the Schoolhouse Department from its unexpended balance the sum of \$15,000 to be expended for repairs and alterations of school buildings, thus restoring to its original purpose a portion of the amount obtained at the beginning of the year to meet the deficit which existed when the Board came into office.

The financial department of the School Committee has heretofore been in charge of a single officer, whose title has been that of auditing clerk, and whose duties comprised not only the purchase of supplies, but the auditing of the bills therefor as well. It seemed to the Board that principles of sound administration required the establishment of two departments, one charged with making purchases. and the other with auditing the expenditures. Under an act passed by the Legislature at the instance of the Board, the office of business agent was therefore created, the title of auditing clerk changed to that of auditor, and the duties heretofore imposed upon the auditing clerk have been divided by the Board between the auditor and the business agent. One of these officials does the buying upon requisitions for supplies, approved in advance by the other. If possible, competitive bids are obtained for any article or articles, the estimated cost of which is in excess of \$100, and in specified instances advertising for proposals for supplies of an estimated cost in excess of \$500. All purchases are made on written orders, which are in duplicate, the original order being transmitted to the party to whom the order is issued, and the duplicate remaining on file for the purpose of checking the bill when rendered. The business agent, as the accountant of the Board, is required to classify and record all expenditures in such manner as to make the cost of the various departments and units of the school system readily ascertainable and available for comparison. He is also required to keep a careful oversight of all expenditures, and to call the attention of the Board to any expense which may seem to him unnecessary, wasteful, or in excess of proper requirements. Both of these officials are under adequate bonds, their respective duties are well defined, and by a system of checks and balances a proper relation between the duties of the two offices has been established.

The act creating the position of business agent also provides that the secretary of the Board, the auditor, and the business agent shall hold their respective offices until removed by the Committee for cause. Heretofore the secretary and the auditing clerk have been subject to annual elections. Under the provisions of this act, the Board during the month of June elected the secretary and auditing clerk, respectively, to the offices of secretary and auditor, and the position of business agent was filled in the month of October by the election of Mr. William J. Smith.

Additional responsibility has been placed upon the schoolhouse custodian, who is authorized, subject to the approval of the Board and to the civil service rules, to appoint, transfer, and remove janitors and engineers, and to make temporary appointments of such employees for a period not exceeding ten days. In order to promote economy in the consumption of fuel and the use of janitors' supplies, it has been provided that the schoolhouse custodian shall approve all requisitions for such articles.

The whole subject of economy constitutes one of the most important administrative problems the Board has to deal with, and much energy has been expended in this direction. Less expensive methods of printing have been put into effect; the prices charged for gas and electricity have been reduced; unnecessary rented quarters have been abandoned; careful investigation has been made of the number of superfluous teachers employed in various schools, and in many cases such teachers have been transferred to fill existing vacancies in other schools.

Under the old Board the elementary day schools were grouped in nine divisions. The first division consisted of East Boston, the second of Charlestown, the third of the North and West Ends, the fourth of part of the city proper, the fifth of part of the city proper and of Roxbury, the sixth of South Boston, the seventh of the rest of Roxbury, the eighth of Brighton and West Roxbury, and the ninth of Dorchester. The schools in each of these divisions were under the especial charge of a committee consisting of five members, and these committees, usually by their respective chairmen. exercised the power to transfer pupils from one district to another, and to grant permits to children living within one grammar school district to attend a school in another district. This custom led to a great deal of fluctuation in school population, which was objectionable because it interfered seriously with the erection of school buildings and with the economical administration of the system generally. It resulted in overcrowding a school in one district and vacant seats in another. It led to the appointment of additional teachers in some districts to take charge of pupils who really belonged in other districts where a sufficient number of teachers were already employed.

Under the new Board this matter of transfers has been fully regulated, and the propriety and necessity of permitting pupils to attend the schools of a district other than that in which they actually reside rests upon the assistant superintendents, and the master of each elementary school district is given the power to regulate the distribution of pupils residing in his district between the various school buildings directly under his charge. The unit of administration

has thus become the elementary school district, and the former apportionment of school districts in divisions has been discontinued.

These changes at first resulted in some complaint, but it was so clearly apparent that they were justified as sound and economical that the objections at first presented speedily died away.

SUPERINTENDENT AND BOARD OF SUPERINTENDENTS.

Mr. George H. Conley, the former superintendent of schools, died on December 20, 1905, only a few days before the present Board came into office, and was succeeded by Mr. Walter S. Parker, the senior member of the board of supervisors, who was designated as acting superintendent at the final meeting of the old Board. At the first meeting of the new Board the resignation of Mr. Stratton D. Brooks, who had been a member of the board of supervisors since September, 1902, was received and accepted, to take effect January 1, 1906. Thus at the outset the Board found itself with a vacancy in its most important executive position, and also in the board of supervisors.

The Act of 1875, reorganizing the School Committee, provided for the election of a superintendent and a board of supervisors, consisting of not more than six members, who should hold office for the term of two years. It seemed to the present Board that this term was altogether too short to permit the superintendent to formulate and carry into effect a definite policy unhampered by immediate personal concern as to his prospects of re-election, and similarly that the members of the board of supervisors should not have their

attention distracted from the important duties and responsibilities imposed upon them by elections occurring at comparatively short intervals. Accordingly, at the instance of the Board, an act was passed by the Legislature extending the term of office of the superintendent to six years, and establishing in place of a board of supervisors a board of superintendents, consisting of six assistant superintendents, whose term of office should be of the same length as that of the superintendent. Pending the passage of this act the Board elected to the superintendency for the term ending August 31, 1906, Mr. Stratton D. Brooks, the former supervisor, who assumed his office on the 21st of March, and in June re-elected him for the full term of six years from the first day of September. At the same meeting the Board re-elected the former supervisors in the order of their seniority respectively for the terms of six, five, four, three, and two years from September 1, 1906, leaving one vacancy upon that board. Thus under the new act one assistant superintendent will be elected every year for a sixvear term, and every sixth year a superintendent will be elected.

RULES AND REGULATIONS.

A matter to which long and earnest consideration was given was the adoption of a revised set of rules and regulations. The numerous questions arising in connection therewith were carefully discussed, and ample opportunity was given to all persons interested to submit such suggestions as were deemed pertinent. To enumerate in detail the differences which exist between the old rules and the new would be a

task of considerable length and difficulty, and would unduly lengthen this report.

One of the most important features of the new rules considered from an administrative standpoint lies in the conferring of direct authority and responsibility upon the superintendent, assistant superintendents, principals, and other executive officials. The superintendent is designated as the executive officer of the Board in all matters relating to instruction and discipline in the public schools, and is given authority to exercise any or all of the duties assigned to assistant superintendents, directors, principals, or teachers. Similar authority may be exercised by an assistant superintendent in the schools or districts assigned to his charge, and, lastly, the principals as the responsible administrative heads of their respective schools or districts are charged with the organization thereof, and the supervision and direction of their subordinates and pupils, and the general maintenance of order and discipline. Thus, in the administration of the school system, the teachers are responsible to the principals, the principals to the assistant superintendents, the assistant superintendents to the superintendent, and finally the superintendent to the Board; and this principle of direct accountability on the part of subordinates to superiors exists throughout the entire code.

APPOINTMENT OF TEACHERS.

Perhaps the most important piece of new legislation for which the present Board is responsible is the adoption of a civil service system governing the appointment of teachers. Sufficient space is not available to permit a complete and detailed explanation of the plan, which in brief is as follows:

All candidates, except graduates of the Boston Normal School, are required to pass an examination by the board of superintendents before receiving a certificate of qualification to teach in the public schools. Each candidate successfully passing such examination receives a rating based upon scholarship, as ascertained by examination, and the amount, quality and character of previous teaching experience, in the following proportions:

Experience:					
Amount .				100	points.
Quality and cha	arac	ter		300	
Scholarship .				600	44
Total				1.000	

The names of persons holding certificates are arranged by the board of superintendents in suitable graded eligible lists in the order of their respective qualifications, and appointments to permanent positions in the day school service, except of principals and directors, are made in regular sequence from the highest three names on the proper graded list at the time the appointment is made. The names of graduates of the Boston Normal School are arranged in similar lists and appointments are made therefrom in the same manner. In rating these graduates, however, a modification of the plan for examined candidates has been adopted, by which, under a system of sliding percentages, increased weight is given each year to success in teaching.

Persons whose names appear on any eligible list, and who desire to have their ratings changed, may have this done only by passing another examination, but graduates of the Boston Normal School are annually regraded upon the lists on which their names appear by the board of superintendents without examination, and may obtain positions upon other eligible lists under the conditions prescribed for other candidates.

Certificates issued on examination after June 1, 1906, remain valid for the term of six years from the date of issue, but if within that time the holder receives a permanent appointment in the day school service, the validity of the certificate continues during the length of that service and for two years thereafter. Certificates are non-renewable, but the board of superintendents may issue instead thereof substitute certificates, which entitle the holder to serve as a substitute or temporary teacher, as special assistant in elementary schools, and in evening and vacation schools. The rules also provide that promotions of teachers already employed shall be made in the order of merit as determined by quality and character of service.

The foregoing statement is, of course, a very brief resumé of an important piece of legislation, but includes its more essential features.

EXAMINATIONS FOR TEACHERS' CERTIFICATES.

The new requirements for rating upon eligible lists candidates successfully passing the examinations for certificates of qualification as teachers have rendered necessary a modification of the plan of preparing examination papers and of marking the same. In the past, each paper submitted by a candidate was estimated

as a whole, and a mark of 1, 2, 3, 4, 5, or 6, according to its value, was given to it. If a candidate showed an intelligent acquaintance with the subjects in which he was examined, he was certificated by the board of supervisors, and became ipso facto eligible for appointment on probation. Under the plan adopted by the present Board examinations have become competitive. and for this reason greater care is required in the preparation of examination papers, and finer distinctions are necessary in the marking thereof. As a consequence, a decimal system of marking has been decided upon by the board of superintendents. Moreover, at the heading of each examination paper there is clearly printed for the instruction of the candidate the maximum number of points assigned to the subject, and after each question is stated the number of points that a candidate may secure by correctly answering each particular question. The number of points won by a candidate in the various academic tests, together with the number of points assigned for amount and character and quality of experience, represents the total number of points credited to the candidate, and determines the position of his name upon the eligible lists, from which permanent appointments in the day school service are made.

PROMOTIONAL EXAMINATIONS.

Another matter of scarcely less importance than the civil service system of appointment is the establishment of a system of tests of efficiency for teachers already in the service, the aim being to make advancement in position and salary dependent upon success in teaching. For this purpose a system of tests or

examinations of proficiency has been established. These reviews or tests, consist of three parts, (1) success in the school during the preceding year, (2) professional study, and (3) academic study in some one line.

As was said in the latest report of the superintendent, this will be no hardship for competent teachers, for no teacher who has failed ought to be advanced in salary, no teacher worthy of her position should allow a year to pass without giving attention to professional study, and no teacher comes to the service so completely equipped in academic knowledge but that she must give some of her time to academic study. This review becomes therefore a report upon the efficiency of a teacher, and the chances of success will be increased if the study necessary thereto be directed by the board of superintendents along the lines that will be most helpful. This does not mean that all teachers will do the same thing, for the value of the plan depends upon so conducting it that the teacher's attention will not be taken away from her work, but rather that it will be more definitely directed towards the work. Wide options will therefore be necessary in order to adapt the examinations to the needs of various teachers

The rules provide that all teachers, except principals and directors, holding permanent positions in the day school service, whose compensation is on a sliding scale with a fixed increase for each successive year of service, shall be paid at the rate established for the first year of such service until the first of January or the first of September next following the first anniversary of their appointment, when they shall be advanced to the second year of the salary schedule,

and all subsequent advances, if any, shall take effect upon one of those two dates.

Before being placed on the third year salary of their respective schedules teachers must successfully pass a promotional examination, and two opportunities are afforded them to do so, but if they fail on two successive occasions to pass the required test, their employment terminates on the first of September next following the date of the second examination. Those who successfully pass the examination continue to advance in salary from year to year until they are receiving the sixth year salary of their respective schedules, when they are required to pass another promotional examination before receiving the next advance in salary. This second examination is similar in character to the first. Teachers who successfully pass this examination are then advanced to the seventh year salary of their respective schedules, and continue to advance from year to year on succeeding anniversaries until they reach the maximum compensation of their rank or grade. Those who fail to pass successfully this second examination, or who do not wish to be thus examined, remain on the sixth year salary of their grades until such time as they shall have successfully passed the examination. Thus it will be seen that the first examination is a compulsory one and the second is optional with the teachers themselves, but the maximum salary of any rank cannot be attained by a teacher who has not passed two separate tests of proficiency.

Teachers who have successfully passed the two prescribed promotional examinations are not required to pass additional examinations because of a change of rank; and those who, on entering the service, are placed on an advanced salary, or who are promoted before passing both examinations, must successfully pass the two prescribed examinations before receiving the maximum salary of their respective schedules.

The rules also provide that upon the recommendation of the principal and assistant superintendent, or of the assistant superintendent of any school or district, the superintendent may require any teacher now in the service, or who may hereafter enter the service, to take the promotional examination in May of any year. Notice of said requirement shall be sent to said teacher before October first preceding the date on which said examination is required.

The requirements of the rules with regard to promotional examinations do not apply to teachers who were in the service before September 1, 1906, but only to those who entered it after that date.

LEAVE OF ABSENCE TO STUDY AND TRAVEL AND FOR REST.

In order to afford liberal opportunity for personal and professional improvement on the part of the teachers, and also that those who have faithfully served the city for a number of years may be able to enjoy a period of relief from their duties to enable them to resume their work with increased efficiency and zeal, the Board has established a rule by which leave of absence to study and travel, or for rest, may be obtained on practically half-pay for a period not exceeding one year. Under this plan any teacher who has served seven years may be given a year's leave of absence to be devoted, under the direction of

the superintendent, to improvement by study and travel. Reports to the superintendent are required of the manner in which the leave of absence is employed, and such leave may be terminated by the superintendent at any time for failure on the part of the teacher to comply with his directions or the requirements of the rules. Such leave may be granted more than once, but not more than once in any eight consecutive years of service. To obtain leave of absence for rest, the teacher must have completed twenty years of service. Teachers who avail themselves of these privileges are required to remain in the service of the Board for three years after the expiration of such leave, or in case of resignation within that period to refund to the Board such proportion of the amount paid them for the time included in the leave of absence as the unexpired portion of the three years may bear to the entire period, but this requirement does not apply to resignation on account of ill health with the consent of the Board, nor to resignation at the request of the Board.

PENSIONS.

With a view to increasing the efficiency of the teaching staff, the Board has also considered the establishment of a pension system under which teachers who have served the city faithfully for many years will not find themselves without provision for their maintenance during declining years.

A considerable amount of data bearing on the question has been accumulated, the services of actuaries have been enlisted, and the Board hopes soon to make public the results of its study of the question.

Numerous factors, of course, enter into the consideration of the problem, and a solution of the question that will be just to the teachers, and to the city as well, is extremely difficult to be arrived at, especially in view of the large amount involved in the establishment of a pension plan that will permit adequate payments to the beneficiaries. Encouraging progress has, however, been made

HIGH SCHOOL OF COMMERCE.

The new High School of Commerce established by vote of the Board, March 26, 1906, was organized at the beginning of the term in the following September, and temporarily occupies a primary school building on Winthrop street, Roxbury. In September, 1907, the school will be transferred to a new building, now under construction in the Back Bay, and forming a part of the so-called "Normal and Latin School group" of buildings, where it will probably remain until it shall be provided with a permanent home of its own.

The first class of pupils admitted to the school consists of 150 members, and the teaching staff comprises a head-master and five teachers. The limited accommodations at present available did not permit the admission of a larger entering class, and as the school is designed to be of a special character, the final type of which may not be determined at once, it was considered well to avoid at the beginning administrative difficulties connected with a larger school. Pupils are admitted to this school on substantially the same conditions as to other high schools, preference being given to graduates of Boston elementary schools in the order of their application.

Before the opening of the school, its head-master was given a leave of absence for some months, which period he devoted to a careful study on the spot of the best types of commercial schools both in this country and abroad, giving especial attention to the German schools of this character, which have achieved a widespread reputation as strictly vocational institutions.

The course of study contains the following description of the aims and character of the schools:

The object of the High School of Commerce is to provide for boys a type of education which will be a suitable preparation for entrance into commercial activities. The course of study has a two-fold aim. namely, to give instruction in those studies which are usually comprised in the term general knowledge, and to teach specifically those phases of the subject of commerce that are adapted to the secondary stage of education. The program is sufficiently general to possess the quality of liberality. The larger aim is that the program shall effect an application of subjects towards a specific end. This aim is vocational, and seeks to prepare for effective participation in commercial pursuits, but the student will find the course broad enough to enable him to enter those higher institutions that do not demand the ancient languages for admission.

Efficiency in the attainment of the proposed aim is sought through the pursuit of liberal subjects, through specialization in technical lines, and through concentration of all the school forces towards the particular objective.

The present program of the school, arranged by subjects, is as follows:

Exclisi: Four periods per week for three and one-half years. Commercial English, Advertising, Correspondence, first half fourth year.

Modern Languages: German, four periods for three years, three periods for one year. French or Spanish, three periods during the second, third, and fourth years.

Economics and History: General History, three periods during first year. Modern History, four periods, first half third year. Economic History, four periods, second half of third year. Commercial Geography, four periods, first half second year. Local industries, four periods, second half of second year. Commercial Law, four periods, first half of fourth year. Civil Government, four periods, second half of fourth year. Economics (elective), five periods, first half of fourth year. Political Economy (elective), five periods, second half of fourth year.

Mathematics: Algebra, four periods during first year; review, four periods, three months in fourth year. Observational Geometry, four periods, first half of second year. Plane Geometry, four periods, fourth year. Commercial Arithmetic, four periods, second half second year.

Business Technique: Penmanship, four periods, first half first year. Business Forms and Practices, four periods, second half first year. Bookkeeping, four periods, second year. Advanced Bookkeeping (elective in third and fourth years), four periods, third year; six periods, fourth year. Typewriting, either one period, third and fourth year, or in the advanced bookkeeping and stenography courses. Stenography (elective), five periods, second year; four periods, third year; six periods, fourth year.

Science: Elementary Physics, four periods, first half first year. Physical Geography, four periods, second half first year. Chemistry, five periods, third year. Advanced Applied Chemistry (cleetive), five periods, fourth year.

Drawing (elective): Freehand, three periods, third year. Mechanical Drawing, three periods, fourth year. Commercial Design, three periods, fourth year.

It should frankly be admitted that the program of a school of this type is necessarily indeterminate from the nature of the field which it seeks to occupy. Commercial activities are always in a state of transition, and the program of a progressive school must necessarily follow the trend of events in mercantile life. Modern business preparation demands education in the science of economics, rather than a knowledge of bookkeeping as the chief factor in the training of the successful man.

The business men of Boston have shown, we are glad to say, a marked readiness to cooperate in the development of the school, and the weekly talks which have been given the pupils by representatives of the commercial life of Boston have been of a most helpful and interesting nature. These talks have been generally devoted to explanations of the demands made by mercantile establishments upon young men entering their employ, and from the school point of view the ideals and principles which should govern business life are most advantageously inculcated by this means. These talks are to be supplemented during the remainder of the current school year by a course of lectures upon the local industries of Boston, to be delivered by an associate editor of one of the large daily papers, who has made a careful study of this subject for the benefit of the municipal authorities.

It is hoped by such means as these, and by others to be developed later, to send the pupils of this school into the business world of Boston well informed upon local needs and opportunities, and with minds well trained to grapple successfully with the problems that will come before them for solution. It is also intended that the pupils shall acquire a "talking" knowledge of foreign languages, and not merely the literary knowledge which has characterized so much of our foreign language study.

On December 3 the School Committee passed an order inviting the President of the Chamber of Commerce, the President of the Merchants' Association and the President of the Associated Board of Trade to formulate a plan to secure the coöperation of business men in the work of the school. In response to this invitation a plan has been prepared and adopted providing for the formation of a committee of twenty-five, composed chiefly of members of these three organizations, to serve as an advisory board, with the hope that a close and definite relationship may be established between the business men of Boston and the school, and thus aid the cause of commercial education in this city, which the High School of Commerce is intended to promote.

HIGH SCHOOL COURSE OF STUDY.

In April a revised course of study for the high schools was adopted, the purely elective system which had been in effect since 1901 being somewhat restricted. While under the new course a considerable latitude is allowed pupils with regard to the selection of the studies they shall pursue, a pupil to obtain a diploma, which usually requires four years' attendance, must have obtained

Six points in physical training,

One point in hygiene.

Three points in choral practice.

At least thirteen points in English.

At least seven points in some one foreign language, or in phonography and typewriting.

At least four points in mathematics or in bookkeeping. At last three points in history, At least three points in science.

The total number of points required for a diploma is 76, of which 36 depend upon elective studies, and not more than fifteen points for drawing, household science and arts, manual training and music, combined, are allowed to count towards a diploma.

Before the adoption of the elective system in high schools those pupils who had satisfactorily completed the so-called three-year course received what was termed a third-year diploma, and those who remained an additional year were awarded a second diploma. The elective system, adopted in 1901, provided for the continuance of the two diplomas, the first being awarded to pupils who had won 60 points, and the second to those who had won 76 points. Under the revised course a so-called first diploma may still be awarded to pupils who have entered a high school before September, 1906, and who win 60 points; but, with this exception, a high school diploma will hereafter represent the completion of a four-year course, or its equivalent.

BACKWARD PUPILS IN HIGH SCHOOLS.

The Board has also legislated on the subject of backward pupils in high schools, to the end that these schools should not be used by pupils at the expense of the city, and to the demoralization of their fellow students, as agreeable places at which to spend a few years in drill, athletics and social events rather than for serious study and self-improvement.

The new regulation provides that a pupil in a high or Latin school who, during the first six months of a given year, has failed in nine or more points of work or its equivalent, exclusive of points in choral practice, physical training, and hygiene, and who has shown a lack of reasonable effort to reach a satisfactory standard of work, may, on recommendation of the principal, be placed on probation by the board of superintendents, and if, at the end of the year, he has not improved his record, he may, on the recommendation of the principal, approved by the board of superintendents, be required to withdraw from the school. A pupil so excluded shall not be readmitted except on assurance of amendment satisfactory to the board of superintendents. A second exclusion shall be final.

As each year of secondary education costs the city on an average about \$92 per pupil, the Board feels that the retention of a pupil in these schools should depend in some measure at least upon what he accomplishes in the direction of serious study.

SCHOOL ATHLETICS.

The subject of school athletics has been given considerable attention. Every one believes that ample opportunity for physical exercise should be afforded all school children, but there are limits to the indulgence of this taste, and it is important that neither the moral standards of the participants should be debased by improper practices nor should their health be impaired by over-exertion. Neither should athletics be allowed to assume too important a place in the minds of the pupils to the disadvantage of academic subjects.

Considerable embarrassment has been experienced from time to time in the administration of this subject, and there has been some question as to the authority of the School Committee over pupils engaged in school athletics, which was finally settled by the passage of an act by the Legislature of 1906.

In June the Board passed an order providing that the superintendent, with the approval of the board of supervisors, should establish a plan for the management and control of school athletics, and issue from time to time and enforce such regulations not contrary to the rules and regulations of the Board as should be necessary to put the plan in operation. The provisions of this order have been put into effect, and the standing of school athletics and of pupils engaged therein has been clearly defined and regulated.

COURSE OF STUDY FOR ELEMENTARY SCHOOLS.

The course of study in the elementary schools, aside from the kindergartens, has heretofore embraced a period of nine years, three in the primary and six in the grammar schools. The new regulations prescribe that the course of study for elementary schools, exclusive of the kindergartens, shall be for eight years, and that the pupils in such schools shall be divided into kindergartens and eight grades. This change does not mean that the amount of work done will be lessened or its quality changed, but that those pupils who can progress faster than others shall have the opportunity to do so. Experience has shown that approximately two-thirds of the children will complete the work of the elementary schools satisfactorily in

eight years, and this means a very considerable financial saving to the city, besides furnishing better mental training for the children by permitting them to progress according to the measure of their intellect without spending so many hours merely in marking time owing to the rigidity of the system. The remaining third will, of course, be allowed to move at a slower rate, and complete the work in nine years. The necessary revision of the elementary course of study to conform to this change has practically been completed and will soon be published. In connection with this revised course, committees consisting of members of the board of superintendents and of teachers have prepared preliminary and tentative courses in arithmetic for the first three grades, and also in geography and in English. The two former have been adopted and put into effect experimentally for the current school year, and the complete course will soon follow.

CLASSES FOR MENTALLY DEFICIENT CHILDREN.

In November, 1898, the first teacher of defectives was appointed, and her class began its work on January 30, 1899, in the Appleton-street Primary Schoolhouse. From time to time additional classes for mentally deficient children have been established until there are now seven in all. The pupils for these classes have been selected by Dr. Arthur C. Jelly, who has given much of his service in this respect without remuneration. Believing that the proper administration of this work warranted the appointment of a competent expert in mental diseases, the Board has established the position of medical inspector of special classes. To this position Dr. Jelly has been

elected, and under his direction great improvement in administration and results may be expected.

The first school of this sort in America was established in Boston under the direction of Dr. Samuel G. Howe of the Perkins Institution for the Blind. Speaking of this school in one of his earlier reports, Dr. Howe said. "It is a link in the chain of common schools, the last, indeed, but still a necessary link in order to embrace all the children in the State." Special classes in the public schools form a connecting link between the institution and the public school, and in order to make these classes practically useful, it is necessary to maintain a close connection on the one hand with the institution, so that transfers may be made in that direction, and also an equally close connection with the grade classes, so that a child who has shown increased capacity may try grade work again. While these classes are relatively expensive, the quota of pupils to a teacher being but fifteen, it can be easily shown that the community is constantly saved a considerable sum of money when children of this sort are thoroughly studied and segregated in institutions suited to their needs before they have acquired vicious habits, and have caused larger expenditures by reason of moral obliquities. So there is undoubtedly sufficient reason for an early study of unusual cases in the lower grades of the public schools with a view to building up proper habits of life and to the prevention of shiftless and vicious habits as may often be done through an awakening of such children to an interest in their work. Moreover, there can be no doubt that the work of a grade teacher is enormously lightened by the removal

of children of this description from her large class, and the opportunity for the remaining children to progress is improved. It seems essential, therefore, that a sufficient number of classes be established to make adequate provision for the training of the children who may best profit by the education such classes afford. The number of pupils now belonging to all these classes is slightly under 100.

DISCIPLINARY CLASSES.

There is another class of children for whom special provision has been made by the Board in the establishment of disciplinary classes.

The object of such classes is to receive boys who have not proved amenable to ordinary school discipline, and have been a disturbing element to the classes which they attend. It is hoped that by wise, judicious, and kindly influences they may be prevented from being sent to the Parental School and retained in the public school system without the necessity of recourse to court proceedings. These classes are to be held in the ordinary school buildings and are to be taught by the best teachers available, and as a recognition of the importance of the services of such teachers a slight increase in compensation over what is allowed the regular grade teacher is paid.

Thus far, but one disciplinary class has been established, and occupies accommodations in the Sarah J. Baker School-house in the Lewis District. It began its sessions on December 12, 1906, and now has a membership of eleven pupils, who come from eight separate school districts. Those who come from a distance too great to admit of walking are, at the discretion of the

assistant superintendent in charge, furnished with car tickets. Thus the delinquent boy has been separated from his thoughtless, wayward, and often vicious companions, his route to and from school has not been the accustomed one, the scene of his school life, his classmates, and his teacher have been changed, all of which has begun to effect a change in the boy himself. has been assured on entering the disciplinary class that his former record is not to follow him, but that he is to have a fresh, fair start, which he seems to have realized and appreciated. There has been some difficulty with regard to punctuality on the part of the pupils: on the other hand, the attendance has been excellent for the five weeks that the class has been in operation. averaging nearly 98 per cent. Different forms of manual training have been undertaken, such as clay modeling, cardboard construction, woodworking, basketry, and weaving, and with fair results. The pupils have been given physical exercises in the school gymnasium, thus affording them an excellent opportunity to work off that vim and go which are quite certain to be found in their physical make-up. The discipline has been firm and exact, but notwithstanding the fact that each boy previous to his entrance to the class had received corporal punishment in his home school, thus far no such punishment has been inflicted on any member of the class. The sessions are from 9 o'clock A.M. until 2.15 o'clock P.M., with an intermission of thirty minutes for lunch, which each boy provides for himself, the teacher partaking of her own at the same time with the boys, and thereby obtaining an excellent opportunity for additional insight into some of their characteristics

THE JUVENILE COURT.

Early in the year, the Board became convinced that the methods then employed by the courts in dealing with juvenile offenders of school age were not producing the results which might reasonably be expected, and that a considerable number of school children was each year sent unnecessarily to the Parental School and to the House of Reformation (now called the "Suffolk School for Boys"), with great loss to the public and infinite injury to the children themselves.

The Board found that while, in the five years from 1900 to 1905, the population of Boston had increased 6‡ per cent., the number of boys sentenced to the city House of Reformation had increased over 61½ per cent., and that the number of inmates in the Parental School had increased 25 per cent., and was at that time increasing still more rapidly. It also found that the number of inmates in these institutions largely exceeded the number which they were supposed to accommodate (in the former case by about 60 per cent. and in the latter by about 18 per cent.), and that to properly accommodate their inmates these institutions would have to be enlarged at once, at an estimated cost of \$100,000.

The members of the School Board became convinced that these unfortunate results were due partly to defects in the method employed by the courts in dealing with juvenile offenders, and perhaps still more largely to the very small amount of time which the central municipal court was able to give to the study of each case, and that much better results would be obtained if there were substituted for the existing

system, which dealt with juvenile offenders in very much the same manner as with adult criminals, one which would enable the court to give sufficient time to the consideration of these cases, and which recognized that it was dealing with children and not adults, and which accordingly adopted those methods which the experience of juvenile courts in other cities had proved to be much more efficacious in the case of children than the method then employed in the city of Boston.

The School Board, the Mayor joining with it, therefore petitioned the Legislature for the passage of an act providing that the jurisdiction in respect to boys and girls under seventeen years of age at that time possessed by the central municipal court — which was so crowded with work that it was able to give only a few minutes' consideration to each case, and which assigned a different judge each week to hear the children's cases — should be transferred to a proposed juvenile court, to be presided over at all times by the same judge, who should be selected because of his unusual understanding of the nature of children and his ability successfully to influence for the better the children brought before him.

The Legislature passed the act (chapter 489 of the Acts of 1906), and the Governor appointed as judge of the new court Harvey H. Baker, Esq., a gentleman whose knowledge of children and of the laws in reference to them is supplemented by commendable zeal in performing the work of the court. Under the terms of the act, the court did not begin its work until September 1, 1906; but the results obtained in the first three months of the court's existence

have already demonstrated the wisdom of the School Committee in requesting this legislation. By giving more time and care to the consideration of the cases brought before it, by making a more extensive and intelligent use of the probation system, and by seeking to secure the active and continuous coöperation and help of the parents, teachers, and friends of the juvenile offenders, the number in the two institutions named above has been decreased already during the three months by 10 per cent., and much better results have been secured.

DEPARTMENT OF DRAWING AND MANUAL TRAINING.

Drawing and manual training have heretofore been conducted as two separate departments. Recently, however, the tendency throughout the country has been towards a closer correlation between the two subjects, and in the arts and crafts movement this inclination has been very clearly manifested. The commercial product of manual training, improved and refined by art, becomes more valuable, and a pupil interested in manual training finds his interest deepened, his imagination quickened, his skill increased, and the article he makes enhanced in value both to himself and to others by learning that useful things may also be made beautiful if the hands are guided by a mind appreciative of an æsthetic ideal.

The departments of drawing and of manual training have therefore been united and placed under the charge of a single director, who has had long and successful experience in this field of endeavor. Under one administrative head, it is expected that the work heretofore done in two departments will be unified and developed

into a progressive, coherent course, the elements of which shall properly supplement each other and thus best meet the needs of the pupils.

Some topics, notably freehand drawing, are equally valuable for several phases of the manual arts. Ability to represent readily the appearance of things and the facts of structure is not only important for artists, but also for those whose occupation is scientific or industrial. By far the larger part of working drawing is in its first stages freehand. When by a sketch one can place before himself and others many ways of doing a thing, he is enabled to make comparisons, and to choose more easily what is best, for in his sketches he can try many schemes without too much waste of time and costly material. Freehand drawing is therefore as closely related to manual training as to æsthetics. The union of drawing and manual training gives opportunity to broaden the scope of this most important subject. It also increases the efficiency of instruction in design. Constructive designs, made during the time allotted to drawing, can be worked out in the manual training rooms. Thus design and construction can be taught in their proper relation.

SUPERVISOR OF SUBSTITUTES.

The Board has established during the past year the position of supervisor of substitutes. This office was filled by the appointment of a woman then serving as principal of one of the larger elementary school districts, and who had previously been a member of the teaching staff of the Normal School. Practically all substitutes employed are graduates of this school, and the new official has had long and intimate acquaintance

both with the work of the Normal School and with the character, qualifications, and ambitions of its pupils.

The duties of this office consist in general of (1) the assignment of substitutes in response to calls from the various principals, (2) visiting those teachers who have not yet received a permanent appointment, but who are temporarily employed, to correct, criticise and encourage them in their work, and (3) holding conferences with these younger members of the teaching corps for the purpose of increasing their professional efficiency.

The supervisor of substitutes may be found at the headquarters building on each school day from half-past eight until half-past nine in the morning, ready to respond to calls for substitutes from the various districts, all of which have telephone connections, and to make assignments in response to such calls from the group of unemployed teachers who present themselves each morning at the headquarters building for that purpose.

Assignments are made from the established eligible list so far as practicable in regular order, beginning with those standing nearest to the head of the list. An assignment once made continues as long as the necessity for such employment exists and the service of the teacher is satisfactory to the principal of the district and to the supervisor of substitutes. In some cases an assignment means only a single day's work, in others it may include a week or even a longer period. A careful record is kept of the work rendered by each substitute teacher thus appointed, and an estimate of the value of her service is made by the principal of each district in which she serves, and by the supervisor of substitutes as well. An effort is made to assign substitutes to positions which they are best qualified to fill.

and so far as possible to equalize the period of employment of the various candidates. Thus economy and efficiency have been promoted by an intelligent assignment of individuals for service in the particular grades for which they have shown especial fitness.

During the day the supervisor of substitutes devotes her time to visiting these young teachers for the purpose of assisting them over some of the difficulties that lie in their way, and every afternoon, after the close of the daily session, she may be found in her office ready to meet and discuss with them any problems in which her assistance may be useful. A series of grade conferences is in preparation, and the supervisor of substitutes hopes by coöperation with all teachers employed in the school system to do her share in strengthening and helping the beginners in the service.

This system seems much preferable to the old method which obliged a master to desert his school at nine o'clock to hunt up a substitute to take the place of some teacher unexpectedly absent, and which also left the amount of substitute experience and supervision of these candidates for permanent positions largely to chance or to spasmodic attention.

DEPARTMENT OF HOUSEHOLD SCIENCE AND ARTS.

Cookery and sewing have been parts of the elementary school course of study for many years. The teachers of the former subject have in the past been under the supervision of the principal of schools of cookery, which position has been vacant for several years, and the teachers of sewing have of late been under the charge of a member of the board of superintendents.

To the end that the instruction in both these subjects might be made more effective, the Board has established the department of household science and arts, appointing as its head the teacher having charge of a similar department in the Normal School, and upon her resignation filled the position by the promotion of one of the teachers of cookery. This supervisor, in addition to having especial charge of the subjects and teachers of cookery and sewing in the elementary schools, is to give such instruction in these subjects in the Normal and high schools as the superintendent may direct.

DIRECTOR OF EVENING AND VACATION SCHOOLS.

The importance of the evening and vacation schools as a part of the general school system is constantly growing, and in view of the largely increased responsibilities which have now been placed upon the assistant superintendents, it has become impossible for them to exercise over the evening schools that degree of supervision that their proper administration requires, nor has the Board in the past felt that it could reasonably ask them to give a considerable part of their well-earned vacation period to the care of the summer schools. The Board accordingly has established and filled the position of director of evening and vacation schools. Thus far this official has devoted himself largely to the following general lines of effort: familiarizing himself with the various schools and their activities by personal inspection; arranging and improving methods of administration; studying equipment and requirements, with a view to making proper provision for another year; holding frequent meetings with principals and teachers; and consideration of a course of study for

elementary schools that shall define the approximate limits of work suited to the different grades.

The result of meetings which have been held with the principals of the various evening high schools has been a better understanding of many questions which have arisen under the revised course of study for these schools, adopted last June, and in bringing about a more uniform system of organization and instruction than has heretofore existed.

The new course of study for evening high schools defines more clearly than the former course the work of several branches of study, and lays especial emphasis on the importance of practical English composition. The aim is to develop thoroughness by limiting the amount of work required for a year's study to that which can be reasonably accomplished in that time. The regulations in regard to the election of studies are intended to limit first-year pupils to a choice of the simpler subjects, and to encourage them to advance through second and third years to the more difficult work. The number of diploma credits assigned to a subject is made to depend largely upon the number of hours per week given to the subject, as in day schools.

The organization of the Central Evening High School remains unchanged. Two parallel programs are offered, one three nights a week and the other two nights. The local high schools in Charlestown, East Boston, Roxbury and South Boston have been organized on a basis of four nights a week, making it possible for a student to get a course of eighty lessons in a subject in a term of twenty-two weeks, allowing for the time taken in organization, examina-

tions and holidays. While the apparent number of pupils has decreased under this plan, those who attend receive a larger amount of instruction in each subject than formerly, and it seems likely that the work of most pupils is more profitable to them than under the old plan.

In the elementary schools a great deal of attention has been given to the matter of obtaining adequate supplies, and it is hoped that the work of these schools will be materially strengthened hereafter by a discontinuance of certain books heretofore used, and furnishing a larger number of new books better adapted for the needs of the pupils.

It is proposed also to establish committees consisting of teachers of various subjects, and of those having classes of foreigners exclusively, for the purpose of making recommendations for a more definite and comprehensive course of study, and to further promote a more uniform system of instruction in each subject throughout the entire group of evening schools. The teachers themselves have responded with great readiness to the invitations extended them to assist in this effort, and have manifested a most commendable zeal and interest in furthering the objects of the director.

A system has been established for rating the work of each teacher employed so that the efficiency, or lack of efficiency, of various individuals may readily be ascertained and thus determine the advisability of continuing their services from term to term.

Considerable attention has been given to the better enforcement of the law relating to the evening school attendance of illiterate minors, and a card has been prepared and adopted for notifying employers of the attendance at evening schools of minors employed by them who are required to attend such schools, and for notifying the chief of the district police of irregular attendance on the part of such minors.

As the term of office of the director has as yet covered only a part of a single term of the evening schools, and the first term of the vacation schools under his supervision will not begin until the summer of 1907, data for a more extended reference to the subject is not yet available.

EVENING CLASS IN SALESMANSHIP.

In September, 1906, an order was passed by the Board providing that the class in salesmanship which had previously been maintained by a number of Boston merchants be continued in the Bigelow Evening School at the expense of the city for the term 1906–07. A course covering twenty-four nights was organized by the principal of that school, aided by interested and experienced persons. Following the plan pursued in former years, lectures were given by members of firms and by superintendents employed by some of the leading business houses of Boston.

These lectures treated of various phases of the subject of salesmanship, and were given under such titles as "Success," "Store Policy," "Trifles," "Old and New Salesmanship," "Essentials to Successful Salesmanship," "How to Handle Various Types of Customers," and "Relations of Employer to Employee." At the close of each talk the pupils of the class were given opportunity to ask questions, which were answered on the basis of practical experience.

To the lecture and question method was added this vear the demonstration lesson, which was a natural development of the "quiz," and proved exceedingly helpful. These lessons alternating with the lectures were given by successful salespeople sent by various business firms interested in the course, fully equipped with various lines of goods and accompanied by one or more assistants, who impersonated the different sorts of customers. Actual sales were made in the presence of the class, the salesman explaining his methods as he proceeded and answering questions from the pupils. Some demonstrators contrasted the right and wrong ways of approach, sale, and close of sale. Talks were given on the facts concerning the manufacture of such textiles as linens, woolens, and gloves: and the broader subjects of commercial relations of New England to Europe, and commercial training.

The class consisted of fifty regular and many occasional attendants, representing forty-eight different stores, both wholesale and retail. Certificates were granted to those whose attendance had been regular and their names forwarded to their employers, thus calling attention to ambitious clerks.

This movement has proved its own worth. Business houses which at first gave little encouragement to such a course are showing considerable interest, and more of their employees are taking advantage of this opportunity for self-improvement. Two problems for the future are, — how to reach those who are not ambitious, and just what a course in salesmanship should include.

Through the continued coöperation of several of the leading business houses in furnishing lecturers and

demonstrators, it has been possible to continue this course at a very small expense, and the results obtained have been highly gratifying.

SCHOOL NURSES.

In November, 1905, the School Committee gave permission to the District Nursing Association (subsequently the Instructive District Nursing Association) and the Fathers' and Mothers' Club of Boston, respectively, to place a trained nurse in the schools of the Quincy and Wells Districts for the purpose of supplementing the work of the medical inspectors appointed by the Board of Health, by personal effort among pupils and parents in matters of sanitation and hygiene. Subsequently, the Instructive District Nursing Association assumed charge of the nurses in both these districts. The success of this service, which is furnished without expense to the city, was immediate and convincing, and the plan met with hearty endorsement on the part of principals and teachers, many of whom have urged its extension

In September, 1906, this association, under permission given by the School Committee, placed a nurse in the schools of the Bowdoin and Phillips Districts, and proposes early in 1907 to assign nurses to the Eliot and Hancock Districts as well.

The Mount Sinai Hospital Society, situated in the West End, where there is a large Hebrew population, signified its desire to be of service in the same direction, and with the consent of the School Committee has employed a nurse in the Washington School District, under the usual conditions.

We take pleasure in expressing our sincere and

hearty thanks to these organizations for the valuable public service they are rendering, and also to those whose generous donations render this contribution to the common welfare possible.

In the opinion of the School Committee, the employment of a sufficient number of nurses in the public schools at the expense of the city is a matter well deserving serious consideration, and the amount of good that would be accomplished by a competent corps of such nurses, under proper supervision and discipline, would well warrant any reasonable expense in this direction. To render efficient service in the elementary day schools would require thirty-four nurses and a suitable supervisory official.

TRUANT OFFICERS.

An act passed by the last Legislature (chapter 499, Acts 1906) relating to the illegal employment of minors, imposes upon truant officers certain duties with respect to the enforcement of the law on this subject. and the Board consequently in September passed an order providing for the assignment of an officer to the duty of investigating cases of illegal employment of minors, and to the supervision of minors holding licenses issued by the Board. In order that this detail might be made without detriment to the ordinary duties of the truant officers, and also to give the present force much needed assistance, two additional officers have been appointed during the year, so that the entire force now consists of a chief and twenty-two subordinate officers. One of the new officers is acquainted with Yiddish, and the Board feels that in view of the large Hebrew population in this city, which is rapidly increasing, this qualification will largely add to his usefulness.

SUSPENSION OF SESSIONS ON STORMY DAYS.

The suspension of school sessions on stormy days has been a vexed question for many years, and various attempts have been made to arrive at an arrangement that would meet with general acceptance. Under the rule as it now stands the superintendent is authorized to suspend the sessions of the schools for the entire day by causing a signal to be given at 7.45 A.M.; and the principal of each elementary school district may suspend the afternoon session of the schools in his own district by giving notice to the pupils before dismissal at 12 In a territory so widely extended as Boston, it not infrequently happens that a storm of considerable severity may be in progress in one part of the city while in another and widely separated section there may be but small reason for suspending school sessions on that account. Furthermore, in some sections a suspension of the session means merely that the children will be on the streets, when they would be more comfortable and better protected in the school buildings; or the conditions of the sidewalks and thoroughfares may be very different in different sections of the city. Under the old rule there was no distinction drawn, and either in all or in none of the schools were afternoon sessions suspended because of stormy weather. The new rule allows each principal discretion, which he is expected to exercise wisely and for the welfare of his pupils.

TELEPHONE SERVICE.

The great desirability of connecting the Masonstreet headquarters with the various high and grammar school-houses has been recognized for a number of years, but the considerable expense attending the adoption of such a system of intercommunication has heretofore been prohibitive. The present Board has, however, been able to make an arrangement for the installation in practically every high and grammar school in the city, and some primary buildings as well, of what is known as the coin box service, without any guarantee on the part of the city, and without expense, except the usual toll rates for outward messages from the several school buildings. This service has been found to be of great administrative value to the school system.

CONTRIBUTIONS FOR SAN FRANCISCO SCHOOLS.

Shortly after the earthquake which destroyed the city of San Francisco, the Board passed an order authorizing the various principals to take such means as they deemed expedient to raise money among the school children of this city for the purpose of erecting a school building in that city, provided, however, that no elementary school pupil should be permitted to contribute more than five cents and no high school pupil more than ten cents. At the same meeting, April 23, the superintendent was authorized to take steps to secure the coöperation of school children in other cities. A recent report made by the chairman of the committee having in charge the securing of these funds contains the following statement:

Contributed by Boston schools						\$3,377	56
Contribu	ted L	y oth	er sel	$_{ m nools}$		2,705	66
Interest						99	59
Total						\$6.182	81

This amount has been duly forwarded to the superintendent of schools of San Francisco, who, in acknowledging its receipt, says, "I hope that you will take the occasion to disseminate broadcast these feeble expressions of heartfelt gratitude toward our New England friends and benefactors, in which the school children of this city participate with me. I have read with great interest and attention your request that your contribution be put in the form of a memorial, as the furnishing or decorating of some room, and I assure you that when the time comes to expend the money out of the reconstruction fund, I shall exert my utmost efforts to follow your desires."

Mr. Granville S. Webster, principal of the Eliot District, who died July 21, 1906, was born at Chelmsford, November 27, 1833, and entered the service of the city as usher in the Eliot School November 3, 1870. On September 1, 1875, he became sub-master of the same school, and was promoted to the position of principal October 7, 1895, where he remained until his death on July 21, 1906.

The thirty-six years that were spent by Mr. Webster in faithful service at the Eliot School were characterized by conscientious and unfailing devotion to duty. Unassuming, genial, sincere, he labored with untiring fidelity. He was fortunate in that, despite his seventy-two years, he preserved his health and vigor, and apparently a keen enjoyment of his duties until the brief and sudden illness that carried him away.

His memory will long be cherished not only by those with whom he was associated in recent years, but by many men who in former times were identified with the old North End, and whose boyhood years were spent under Mr. Webster's teaching and influence.

JAMES J. STORROW,

Chairman,

DAVID A. ELLIS,

GEORGE E. BROCK,

THOMAS J. KENNY,

WILLIAM S. KENNY.

SCHOOL DOCUMENT NO. 16-1907

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF BOSTON

1907



BOSTON
MUNICIPAL PRINTING OFFICE
1907

Way to the second

SCHOOL COMMITTEE.

Term expires January, 1908.

THOMAS J. KENNY.

WILLIAM S. KENNY.

Term expires January, 1909.

GEORGE E. BROCK,

JAMES J. STORROW.

Term expires January, 1910.

DAVID A. ELLIS.

OFFICERS OF THE BOARD.

Chairman.

JAMES J. STORROW.

Superintendent.

STRATTON D. BROOKS.

Assistant Superintendents.

WALTER S. PARKER,

JEREMIAH E. BURKE, AUGUSTINE L. RAFTER.

ELLOR C. RIPLEY,

ROBERT E. BURKE.

MAURICE P. WHITE, .

Secretary.
THORNTON D. APOLLONIO.

Auditor.

WILLIAM J. PORTER.

Business Agent.

* WILLIAM J. SMITH.

† WILLIAM T. KEOUGH.

Schoolhouse Custodian.

MARK B. MULVEY.



REPORT.

SCHOOL SYSTEM.

The public school system of Boston comprises¹ one Normal School, two Latin Schools (one for boys and one for girls), nine High Schools, the High School of Commerce (for boys), and the Mechanic Arts High School (for boys), sixty-four Elementary Schools, one hundred eight Kindergartens, one School for the Deaf, five Evening High Schools, thirteen Evening Elementary Schools, six Evening Drawing Schools, and a special school on Spectacle Island.

STATISTICS.2

The following statistics are for the school year ended June 30, 1907, except those giving the number of children in Boston between the ages of five and fifteen years, and the number attending public and private schools, which are from the census taken September 1, 1907:

the from the constant twich september by boots	
Number of children in Boston between the ages of five and	
fifteen, Sept. 1, 1907	104,150
Number attending public schools, Sept. 1, 1907	77,526
Number attending private schools, Sept. 1, 1907	16,829
Whole number of different pupils registered in the public day	
schools during the year ended June 30, 1907:	
Boys, 54,231: girls, 52,139 — total	106,370
REGULAR SCHOOLS.	
Normal School.	
Number of teachers	15
Average number of pupils belonging	239

⁴ June 30, 1907

235

² Other and more complete statistics may be found in School Documents Nos. 4 and 12, 1907.

Latin and High Schools.					
Number of schools	13				
Number of teachers	283				
Average number of pupils belonging	7,444				
Average attendance	7.012				
Elementary Schools.					
Number of schools	64				
Number of teachers	1,925				
Average number of pupils belonging	81,467				
Average attendance	74,523				
Kinder qartens.					
Number of schools	108				
Number of teachers	210				
Average number of pupils belonging	5,604				
Average attendance	4,229				
	,				
SPECIAL SCHOOLS.					
Horace Mann School for the Deaf.					
Number of teachers	16				
Average number of pupils belonging	142				
Average attendance	. 125				
Evening Schools. ¹					
Number of schools	18				
Number of teachers	331				
Average number of pupils belonging	10,281				
Average attendance	6,792				
Evening Drawing Schools.					
Number of schools	6				
Number of teachers	29				
Average number of pupils belonging	670				
Average attendance	475				
Spectacle Island School.					
Number of teachers	1				
Average number of pupils belonging	. 8				
Average attendance	7				

¹ The Evening High Schools are organized in two divisions, Division I. holding sessions on Monday, Wednesday, and Friday evenings; Division II. on Tuesday and Thursday evenings. Thus there are practically two sets of pupils and but one set of teachers. For statistical purposes, the two sets of pupils are added together, while the teachers are counted but once.

RECAPITULATION.

Number of schools:		
Regular	186	
Special	26	
1		
Total		212
Number of teachers:		
In regular schools	2,433	
In special schools 1		
Total		2,810
Average number of pupils belonging:		
In regular schools	94,754	
In special schools 1		
T - 4 - 1		101.11
Total		105,855
Average attendance:		
In regular schools	86,081	
In special schools ¹	7,399	
Total		93,480

GENERAL LEGISLATION.

The Legislature of 1907 passed two acts, the provisions of which have an important bearing upon the development of the school system along certain lines, and a third act intended to make adequate provision for necessary additional accommodations from year to year.

Chapter 295, "An Act to enlarge the powers of the School Committee of the City of Boston in respect to physical education," provides that the Committee, within the limit of the appropriations for such purposes made by it under authority of this act, or under existing authority of law, shall, during the summer vacation and such other part of the year as it may deem advisable, organize and conduct physical training and exercises, athletic sports, games and play, and shall provide proper apparatus, equipment, and

¹ Special classes included.

facilities for the same in buildings, yards, and playgrounds under the control of the Committee, or upon any other land which it may have the right to use for this purpose. It provides also that the Committee may use for such purposes playgrounds, gymnasia, or buildings under the control of the Park Commission, which it may deem suitable therefor, under such reasonable regulations and conditions as the Park Commission may prescribe; provided, that such use shall not extend to any playground, gymnasium, or building under the control of the Park Commission which the Commission, by a vote approved by the Mayor, shall declare to be unsuitable for such use. To earry into effect the provisions of this act, the School Committee is authorized to make an appropriation for the year 1907 limited to two cents upon each \$1,000 of the average valuation upon which the appropriations of the City Council are based, and four cents for each subsequent year. The School Committee. therefore, on June 10, 1907, appropriated \$25,000 for the purposes contemplated by this act, and that amount has been expended accordingly.

The second act (Chapter 357) directly relates to the physical welfare of pupils in the public schools, and provides that the School Committee shall appoint one supervising female nurse and as many district female nurses as, in its opinion, are necessary. These nurses are required to perform such duties as the Committee may designate, but more particularly they are required to assist the medical inspectors, who are appointed by the Board of Health, in their work in the public schools, to see that the directions given by the inspectors are carried out, and to give such instruction to the pupils as will promote their physical welfare. To insure the employment of none but experienced and duly qualified persons to serve as nurses in the public schools, the act provides that as a pre-requisite for such appointment, a candidate shall have taken a course

of instruction in, and been graduated from, some hospital or similar institution giving a course of instruction in nursing at least two years in length, and in addition thereto shall present satisfactory evidence of possessing good character and health, and shall also pass an examination given under the direction of the School Committee and designed to test the applicant's training, knowledge, character, experience, and aptness for the work.

To meet the expense of carrying into effect the provisions of this act, the School Committee is authorized to appropriate, and did appropriate, the sum of \$10,000 for the year 1907, and thereafter it is authorized to make an appropriation for the maintenance of this corps of nurses at the rate of two cents upon each \$1,000 of the average valuation of the city on which the appropriations of the City Council are based, or about \$25,000 annually.

The School Committee then proceeded to reorganize the Department of Physical Training as a Department of School Hygiene, consisting of a director, three assistant directors of physical training and athletics, special instructors and special assistant instructors in physical training, instructors and assistant instructors in athletics, supervisors of playgrounds, playground teachers, heads of playgrounds, helpers in playgrounds, helpers in sand gardens, instructor in military drill, armorer, medical inspector of special classes, supervising nurse and assistant nurses. number of the latter corps at first consisted of twenty individuals, which was increased at the close of the year to twenty-nine. The appointment of school nurses under the control of the School Committee differs somewhat from the custom in other cities where nurses are employed by the health department. In Boston the system of medical inspection is under the direction of the Board of Health. which appoints, and pays from its appropriation, the medical inspectors, consisting of eighty physicians. The schoolregulations provide for the cooperation of the nurses with

the inspectors, but the former are exclusively under the control of the school authorities. In some school building in each elementary school district a room is fitted up with proper appliances for the accommodation of the nurse assigned to that district, and each individual nurse has about 2,700 children assigned to her care. The following abstract of the work done by the nursing division for the period from September 11, 1907, to December 31, 1907, speaks for itself, and it should be remembered that nurses are not permitted to visit homes where there are cases of contagious disease:

Diseases of Ear, 1,137 cases eared for; Eye, 4,528 cases were diagnosed and cared for, including 2,720 suffering from defective vision—of these 852 cases were treated by oculists; Nose, 2,020 cases, of which 1,059 had adenoids, and 309 had the obstruction removed; Mouth, 1,241 cases, including 1,199 who had carious teeth; Throat, 1,258 cases, consisting of enlarged tonsils, tonsilitis, abscess, pharyngitis, and laryngitis; Skin, 8,602 cases, all of which cases were followed to their homes and the parent or guardian instructed how to care for the same.

In addition to the above, 1.792 pupils having abrasions and wounds were cared for; 705 septic conditions cured; 244 cases of kidney disease recognized and treated and relieved; 121 cases of rachitis put on the correct line of treatment; 213 cases of malnutrition advised as to diet and treatment; 221 cases of epilepsy found and advised; 96 cases of chorea; 47 cases of cardiac disease: 87 cases of bronchitis, and 299 cases of anamia, all assisted. Of the less common afflictions of childhood, 105 cases of deformity (spinal and extremities) were seen and are now receiving the benefit of skilled orthopedic attention.

Two thousand nine hundred and sixty-three general cases were persuaded to consult their own family physician; of this number 2.508 cases were cured and returned to school at a minimum of absenteeism; 3.291 general cases which

were not able to incur the expense of a private physician were referred to the hospital or dispensary, of which 1,665 were cured, the remainder being still under treatment. There were also 999 affections looked after of which there is no classification. These do not include the specific infectious diseases

The foregoing statement does not by any means cover the entire scope of the work done by these nurses. In addition to looking after the minor ailments in school life and visiting the homes of the children to see that they are properly cared for, they give advice and assistance to the mothers with regard to the proper preparation of food, hygiene, and care of the home. In visiting these homes, the nurses do not enter as official agents of a central authority, but rather as friends and advisers genuinely interested in the welfare of the children, thereby indirectly solving many vexatious problems of the past, and forming a link between the school and the home not possible by any other means.

Connected with the same department is also the medical inspector of special classes, who is appointed and paid by the School Committee, whose duty it is to examine children whose mental condition apparently unfits them to pursue the regular course of study with profit to themselves, and to pass upon their eligibility for admission to special classes.

Heretofore, the athletic teams, composed of high school pupils, have employed and paid coaches selected by themselves and approved by the head-masters of the schools concerned. It is now intended that instructors or assistant instructors of athleties, employed directly by the School Committee and appointed only after examination by the Board of Superintendents in the same manner that other teachers are examined, certificated and appointed, shall take the place of these coaches, and that school athletics generally shall be conducted under the immediate direction and control of the department of School Hygiene. In former years there has been some question as to the authority of the School Commit-

tee over such athletic organizations, but this question was finally and conclusively settled by the passage of Chapter 251 of the Acts of 1906, which provides that school committees may supervise and control all athletic organizations composed of pupils of the public schools and bearing the name of the school; and may directly, or through an authorized representative, determine under what conditions such organizations may enter into competition with similar organizations in other schools.

Instruction in military drill for boys attending high schools, which has been included in the curriculum for many years, is still continued. A setting-up drill, occupying a period of ten minutes daily, has been introduced into the several high schools for both boys and girls. This drill is held either in class-rooms or in corridors, as may be most convenient, and is conducted by a pupil selected in each class by the teacher, and under the direction of the instructor of military drill. The drill consists of facings, arm and leg stretching, and breathing exercises.

In the Normal School the welfare of the pupils is under the personal supervision of the Director, who is himself a physician. Here, as well as in the Latin and high schools, a gymnasium is conducted and special teachers are employed to instruct girl pupils. The essentials of proper breathing, proper standing and carriage are taught and enforced in all school-rooms from the kindergarten to the Normal School, and are not left alone to gymnastic or calisthenic periods or military drill.

A plan is under consideration for the organization of playground activities in accordance with the purposes contemplated by the act herein referred to, which will be put into operation in 1908, when school yards in crowded districts will be equipped with suitable apparatus for use as playgrounds by the younger children; and on large playgrounds now under the supervision of the Park Department instruction in athletics, games and play will be carried on under the direction of the school authorities.

One of the most important functions of the department of School Hygiene relates to the proper seating of pupils, and the supervision and examination of the hygienic condition of school buildings generally. A very large proportion of the school furniture is now of the adjustable pattern, and the department of School Hygiene is especially charged with the duty of seeing that desks and chairs are properly adjusted to meet the needs of the pupils, and to prevent the occurrence of physical defects, such as spinal curvature, which result from the use of ill-fitting furniture. Under the direction of this department, desks and chairs are adjusted at least once each year, and as much oftener as may be necessary to meet the requirements of individual pupils. A constant study is also made of the hygienic and sanitary condition of all school premises, and any defects which may be observed are promptly reported to the proper authority for correction.

The third act passed by the Legislature of 1907, of importance to the School Committee is entitled "An Act Relative to the Construction of School-houses in the City of Boston" (Chapter 450), and provides in substance that the Committee shall annually designate in which of the school districts of the city additional school accommodations are necessary, and shall indicate the approximate number of additional pupils for which provision should be made in each such district, naming the districts in the order in which such accommodations shall be provided, and shall notify the Board of Schoolhouse Commissioners of its action; thereupon, the latter Board is required to certify to the School Committee within one month the amount which, in its opinion, will be required for such accommodations, taking up the items in the order designated by the School Committee, and continuing until the aggregate of the amount is equal to the limit of the amount which may be provided therefor during each particular year. To meet the expense contemplated by this act, provision is made for the issue of bonds payable in a period of not more than twenty years, and bearing interest at a rate not exceeding four per cent. per annum, to an amount not exceeding \$1,000,000 in the year 1907, the same amount in the following year, and thereafter to an annual amount not exceeding \$500,000. These bonds are to be included in the debt limit of the city, except that in the years 1907 and 1908, if the amount in each year exceeds \$750,000, the amount authorized in excess shall not be reckoned in determining the statutory limit of indebtedness of the city. In accordance with the provisions of this act, the following items of additional school accommodations were affirmatively passed upon by the Board in the month of June, and the issue of bonds, to the amount of \$1,000,000 to meet the cost of these additional accommodations, was authorized:

	School District.	Number Pupils.	Estimated Cost.
1.	Agassiz District, elementary school, upper grades		
	(building and furnishing)	264	\$62,000
2.	Wells District, elementary school, lower grades (building and furnishing)	300	50,000
3.	Bennett District, elementary school, lower grades	100	15.000
4	(building and furnishing)	100	15,000
4.	Adams District, elementary school, lower grades (building and furnishing)	200	15,000
5.	Prince District, high school (Mechanic Arts High School), (building and furnishing)	800	500,000
6.	Phillips District, elementary school, upper grades	000	000,000
0.	(land, building and furnishing)	880	358,000
			\$1,000,000

BOSTON NORMAL SCHOOL.

This school is essentially a city training school. After many years of anticipation the Normal School has at last been provided with a new building properly equipped, and is now in a position to accomplish the purpose for which it is maintained, namely, the training of teachers for service in the public schools of Boston, unhampered by those difficulties and restrictions imposed by its former environment when it was fettered by almost every inconvenience under which such a school could possibly exist. The new quarters of the school are situated on Huntington avenue near the Fenway, where a group of buildings has lately been completed and occupied by the Normal School, the Girls' Latin School, and the High School of Commerce. The latter school is later to be provided with a permanent home of its own, to be situated probably nearer the business district of the city, and its present quarters are therefore temporary.

The change in location, however, is not the only one that has taken place with regard to the Normal School. In 1900 there was added to the requirements for admission a provision whereby graduates of the four-year course of the Boston High Schools were obliged to undergo a competitive examination. Gradually there came into existence the feeling that entrance examinations were not, after all, the best test of a girl's fitness to enter the Normal School. and in 1905 a plan of certification was adopted under which a girl is given credit for work successfully performed in her high school course, so that out of a total of 59 points required for admission, an applicant may offer 29 points. based upon successful high school work. The other 30 points are to be obtained by means of examination. Thus the former examination for admission to the school, which was put into operation in 1900, has really been cut in two and limited to very essential subjects, such as English. history, a foreign language, etc. On the face of it, it would seem as though this were lowering the standard of admission, but the experience of the school has been quite otherwise, for in order that high school graduates may obtain the prescribed certificate for admission to the Normal School it is necessary for them to attain a mark of at least B in a subject matter. This means work of a high character in the schools from which they come, and the result has been that the work at present done in the high schools is in no way inferior to college preparatory work. As a matter of

fact, in most cases, the classes are identical, and the quality of the work of the high school graduates who now enter the Normal School is of a very high order, and it is expected to improve as the years go on.

In September a report was received from the Board of Superintendents stating its recognition of the fact that observation and practice of the art of teaching is of great value to the pupils of the Boston Normal School. In order that this phase of school work might be made as effective and practicable as possible, the Martin School district has recently been designated as a school of observation and practice, and in this school the pupils of the Normal School will have splendid opportunities to observe the work of skilled and trained teachers. The choice of the Martin School was determined by its proximity to the Normal School group of buildings, and also by the fact that here is an already established educational unit. The school will be placed under the immediate supervision and direction of a master in the Normal School, who will also be the director of the Model School, the former principal and all the teachers of the Martin School having been transferred to other schools. but without loss of rank or salary. The original plans of the Schoolbouse Commissioners included a so-called Model School to be used in connection with the Normal School. but as the school population in this particular part of the city was not sufficient to fill both the Martin School and the proposed Model School, it was decided to utilize the former school for that purpose. This gave an opportunity to utilize the Patrick A. Collins building, which was originally intended for Model School purposes, to serve as a temporary home for the High School of Commerce, which school, until the opening of the term in September last, had been occupying an old primary building in Roxbury.

In order still further to promote the professional work of the Normal School, the position of Supervisor of Practice has recently been established. In the past the supervisory observation of the work and practice of pupils in the Normal School has been performed by the various teachers of that school, and while this has been well and faithfully done, it is, nevertheless, apparent that in the hands of one individual, skilled in the work, a much higher degree of efficiency can be obtained. The Supervisor of Practice will, of course, be able to come into increasingly personal contact with the Normal School pupils, and will work in harmony with the Supervisor of Substitutes who takes charge of the graduates and arranges for their temporary employment until they are appointed to permanent positions in the day school service.

The new Normal School building promises to be a centre of educational activity in the city. It has large lecture halls and rooms for meetings of teachers, and the nucleus of a splendid library. It is the intention to equip a room in this building with reference material available for use in the schools of the city, and to supply it with such text and reference books as are used throughout the school system. In it, also, has been placed the educational exhibit which has recently been returned from the Jamestown Exposition, and which received there a gold medal. This exhibit is to be kept up to date by additions from year to year, and it is intended that by its use it will be possible at any time to obtain a comprehensive view of the entire work of the city's schools.

All of this, of course, tends toward a greater professional use of the school, and looks to raising the standard of efficiency of the Boston Normal School to a point never before attained. It is intended to keep the school in as intimate contact with teachers and school authorities as possible, so that it may never make the mistake of becoming an experimental station, but may fulfil in the highest degree the purposes for which it is maintained.

HIGH SCHOOL OF COMMERCE.

In the last annual report reference was made to the establishment of the new High School of Commerce, and the adoption of a plan providing for the formation of a committee of business men to serve as an advisory board on this school. The executive committee of this advisory board has recently presented a report on the progress of the school for the year 1906–07, from which the following extracts are taken:

At the meeting of the Business Men's Committee, May, 1907, a series of recommendations was proposed to the School Board concerning such subjects as the permanent site of the school, the employment of technically trained teachers, summer employment for students, etc. These recommendations were adopted by the School Board, and it is believed will be of vital assistance in the development of the school. So far as it is known, this is the first time that such cooperation between the school authorities and the business men has been effected in this country. The plan, however, is not new. It has been in operation for many years in Germany, and the largest factor in the efficiency of the German commercial school has been the influence of practical business men.

That the school is being developed along practical lines is evidenced by several instances enumerated below. During the year groups of students have been taken into the business houses, where, under the direction of competent guides, the young men were shown the workings of modern business houses in actual operation. At weekly intervals throughout the school year, business men spoke before the students, talking upon such subjects as Success in Business, Business Ethics, Business Organizations, etc.

A course of lectures dealing with the local industries of Boston was given by a competent authority. Such subjects as Leather, Wool, Provisions, Textiles, Wholesale and Retail Business, etc., were treated. These lectures were very valuable to the students in giving them reliable information concerning the vocational possibilities in the commercial field of Boston. The course of study of the school permits of a choice of subjects which will enable a young man to prepare himself for one of the three larger divisions of the commercial field; namely, secretarial work, buying and selling, accounting. It is interesting to note that, as a result of the particular study of commercial opportunities, the larger proportion of the young men announced their preference for the active and creative side of business, namely, buying and selling.

The scheme of summer employment proposed by the Business Men's Committee was a successful venture. Only the boys who had completed

the second and third years of high school work were selected as candidates for the summer positions. Boys who had completed only the first year were considered too immature to do effective work. A sufficient number of merchants were found who were willing to give summer employment to boys sent them from the school. It was evident that there were many more business men who were willing to take boys as permanent employees than those who were willing to give temporary employment.

As the business house must necessarily be for the school the practical laboratory of business, it is hoped that a larger number of business men will be willing in succeeding years to cooperate with the school in offering summer places to the boys where they may serve, as it were, a kind of business apprenticeship. The school had no graduating class in June, 1907, but will graduate twenty young men in June, 1908. Consequently, the school was unable last June to meet the demand for candidates for permanent employment.

The plan of summer employment was put into operation in a simple and effective manner. A circular letter was sent out to a number of business houses asking coöperation. The boys were sent to the employment managers of those firms offering assistance. The boys brought with them a statement from the school covering the items of information of interest to employers. All boys who engaged in summer occupations returned to the school upon the opening day and brought with them statements from the several business houses covering the records made in the temporary positions. A special circular of information is being prepared, which will contain a more or less particular account of what the experiment was worth. This circular will contain quotations from various letters received from business houses, and will show that, beyond doubt, the experiment was successful and should be continued during succeeding years.

When the High School of Commerce was established, a new plan of organization for Boston high schools was adopted by the school authorities. The new plan lent itself very effectively to the purpose of the High School of Commerce. The old plan of organization did not have in it the opportunity of employing specialists, who should serve as heads of departments of the various subjects in the course. The new school was the first to be organized on the revised basis. The scheme of organization is of great advantage in enabling the school to effect the special purpose of its creation.

Of the 117 students who were in the school at the close of June, 113 returned to continue the course in September. This proportion is unusually high, and is a proof that the students have a due appreciation of the value of the training afforded them. High standards of school work were insisted upon throughout the year. Students who failed to reach required standards, whether through indifference or through inability, were not continued in the school.

With the opening of school in September, the registration rose to 335 students, a gain over the registration of the June before of over 180

per cent. The gain would have been even larger had the new building been ready for occupation at the opening of school. It was necessary to organize the school, pending the completion of the new building in two buildings near Dudley Street. The inconvenience of these accommodations was marked, there being no opportunity to conduct a number of the most important courses of the curriculum. The Fenway building was occupied October 14.

The new building, now occupied by the school, is located in the so-called Normal School group on Huntington avenue. The structure is called the Patrick A. Collins Building. Originally designed as a model school in connection with the Normal School, it has been adapted in its interior arrangement of class-rooms, laboratories, etc., so that it serves excellently for the purpose of the High School of Commerce. Besides the usual class-rooms, there is a commercial museum, a commercial library, commercial geography laboratory, etc.

In conclusion, the committee wishes to emphasize the belief that the school has made substantial progress during the first year of its existence. Building upon the good start made, and continuing the pursuit of the policies now established, there is good reason to believe that the school will immediately grow to be an instrument of great worth to the youth of the city, a distinct aid to the business interests of the community, and a new and valuable type of practical education, which other cities may come to regard as a pattern.

GIRLS' HIGH SCHOOL OF PRACTICAL ARTS.

The Girls' High School of Practical Arts, which was established by a vote of the School Committee passed May 6, 1907. was organized in the following September, and temporarily occupies accommodations in a building known as Lyceum Hall, at Meeting House Hill, Dorchester. Although handicapped at the start by the location, which is not a central one, and by inadequate quarters, the school opened with an enrollment of sixty-seven pupils, which rapidly increased to somewhat more than one hundred. The purpose of this school is to give full opportunity for the development of that type of students whose talents lie more in lines of doing and expressing than in lines of acquisition. The course of study is presented under two general heads — academic and industrial — and will usually demand four years for its completion. Seventy-six points, of which at least twelve must be gained in the industrial departments, constitute

the minimum requirement for a diploma. All studies in this school are presented in half-year courses, and diplomas may be granted in February or June. This arrangement of work is deemed of personal and academic advantage to students, as it allows them, when obliged to remain out of school for a time, to resume their studies at the beginning of the first half year in September or at the beginning of the second half year in February.

All of the pupils are taking the work of the first year, since it was impossible to provide equipment for more than one class. At present the students in domestic science are compelled to go to the kitchen of the Lewis School on Dale street, Roxbury, for instruction. The cultural courses offered this year are English, algebra, chemistry, and drawing. A strong academic course will be maintained without unduly sacrificing the work on the practical side, which, of course, must remain the distinguishing feature of the school. The pupils were offered a choice of courses in domestic science, dressmaking, and millinery; and it is interesting to note that they divided into three nearly equal groups. For the first half year practice in hand and machine sewing is prescribed for all the pupils before allowing them to specialize.

The various courses of instruction given are planned to develop womanly attributes and to train for work in distinctly feminine occupations. This school differs from the purely industrial or trade school in that it has a four-year academic course in which the girls receive a general education which better prepares them for future duties in the home and in society. The instruction in the practical arts aims to give not only a knowledge of the various processes in each industry studied, but also a comprehensive understanding of these processes in relation to the entire scheme of work, and this instruction should insure to the girls who will seek employment, advancement to places of responsibility in the industries open to them. The remarkable interest shown by the pupils in their work, together with

their parents' cordial and out-spoken appreciation of this new and valuable educational opportunity, proves clearly the community's need and desire for a school of this type. In the following statements will be found in detail the lines of work pursued in the different departments:

English Department.

The courses in English aim to so develop the speech, the intellect, the taste, and the spirit of the pupils that they shall be able

First: To speak the English tongue with a fair degree of correctness and ease, —that they make, for instance, an intelligible statement to butcher, or carpenter, or employer, or discuss a topic of interest with some range of expression.

Second: To write the English language with a fair degree of precision and grace — that they may compose a business letter that will be clear, and a social note that will be gracious.

Third: To think in logical processes so that what they speak and write may possess the advantage of reasonableness

Fourth: To read with such pleasure and appreciation the works of standard American and English authors that they will be led to select for their own reading books of good grade.

Fifth: To live in the possession of the fine ideals that are at once the root and flower of English literature.

Science and Mathematics Departments.

The course in mathematics has two distinct purposes, to train the pupils to think logically and clearly, and to give them the power to handle simple problems intelligently. A girl should be given sufficient training to enable her to write down her household accounts accurately, to understand the principles of a bank account and to know how to make out a simple bill, as well as to solve algebraic or geometric problems.

The course in science attempts to put the pupil in touch with the scientific problems in life. The value of formal training is recognized as in mathematics, but the purpose of the work goes somewhat further, seeking a co-ordination between the training in theory and the practical purposes of the school. Each science should teach the application quite as much as the theory. In chemistry the pupil should understand the bleaching of straw for straw hats by sulphur dioxide, as well as the preparation of the gas in the laboratory. In physics the principles of the construction of a stove or a hot air furnace should be made as important as the principles of radiation, connection and conduction that underlie every piece of heating apparatus. In biology the study of the raising of bread should be the beginning and the end of any microscopic study of the yeast plant. hygiene the course aims to teach the pupil to live her own life more healthily and happily.

Art Department.

- I. Nature study from plants and trees, to stimulate observation, execution, and appreciation of beauty.
- II. Study of the principles of beauty as a foundation for the specific problems required by the several courses.
- III. Illustrated talks showing the application of these principles in dress and in the home.
- IV. Collection of clippings and tracings of costumes, furniture and articles of utility and beauty, as examples for study and comparison.
 - V. Color study as a basis for practical application in costume and household decoration.
- VI. Designs for the accessories of costume and the home: — embroidery patterns for collars, belts, vests, corset covers, sofa pillows, decorative windows, grills, tiling, etc.

VII. Simple exercises in mechanical drawing for practice in measuring and to give understanding of the drawings for the workshop.

Industrial Department.

The courses in this department aim:

First: To set before the pupils the highest ideals of home life; to train them in all that pertains to practical house-keeping, and to cultivate good taste in furnishings and decoration. To this end practice is given in cooking, marketing, planning meals with regard to the economic values of food, — for a day and later for a week, — for people of different occupations, for families and for institutions; catering for parties, and caring for the siek. Practice is also given in planning a house and its furnishings, and in the cleaning and laundry work connected with the care of the household.

Second: To give a thorough knowledge of sewing as a foundation for dressmaking and millinery, by such training as shall lead the pupil towards the highest standards in the selection and making of her own garments, and give her the ability to plan and execute for others. This training includes lessons in textiles and methods of renovating materials. It also gives practice in household mending; embroidery; drafting and cutting patterns; designing, cutting, fitting and making underelothes and other garments, such as waists and dresses of washable materials in various styles, silk and wool waists and skirts, evening and graduation dresses; also in the remodelling of garments. The course in millinery consists of making and covering frames for hats and bonnets, straw sewing, bow making, and the trimming of hats from copies and from original designs.

MECHANIC ARTS HIGH SCHOOL.

Among the items included in the list of additional school accommodations adopted by the School Committee in June,

1907, was one calling for an addition to the Mechanic Arts High School to accommodate 800 pupils, the cost of which was estimated by the Schoolhouse Commission at \$500,000. The task of planning the additional accommodations necessary for this school was probably one of the most difficult problems undertaken by the Schoolhouse Commission. Before a conclusion was reached many months were consumed in preparing sketches and studying their merits and defects, and the results which appear in the plan now being carried into effect will, no doubt, prove that a wise decision has been arrived at. When the original building, completed in 1893. was planned it was impossible to secure reliable data concerning the needs of such a school, because there were few models in existence. The development of the building and its equipment, no less than the course of study and the methods of instruction, has been essentially pioneer work. The addition. completed in 1900, proved entirely inadequate, and for five years it has been impossible to admit all those who have desired to attend this school in fact, there have been but two or three years in the history of the school when it has not been seriously handicapped because of lack of equipment or of accommodations. The lot on which the present extension is being constructed is on the north side of the existing building. and contains a total area of 14.378 square feet. The addition is to be of first-class fireproof construction throughout, five stories high, and provides for a new forge shop, new laboratories, a library, a science lecture room, a drawing room, an emergency room, twenty-two class-rooms for forty pupils each, four class-rooms for eighty pupils each, and an assembly hall with a seating capacity of 1,100. The question of the advisability of devoting so large a portion of the total appropriation for the year available for additional accommodations to this single school was referred by the Mayor to the Finance Commission, which invited a committee, consisting of President Charles W. Eliot of Harvard University, former President Henry S. Pritchett of the Institute of Technology, and

Rev. Thomas I. Gasson, S. J., President of Boston College, to consider the advisability and necessity of making the proposed addition to this school. This committee submitted a unanimous report, which, after stating quite fully the reasons which governed the conclusions arrived at, ended with the following expressions of opinion:

- 1. That the Mechanic Arts High School fills a useful purpose by opening to the youth of Boston new ways towards good livelihoods.
- 2. That its work has shown steady improvement, and that the head-master and his teachers are earnestly and intelligently seeking the further improvements which are to be expected in a comparatively new form of education.
- 3. That additional facilities must be furnished if those boys who wish to avail themselves of this form of education are to have the opportunity to do so.
- 4. That the action of the School Committee and the Schoolhouse Commission concerning the proposed enlargement has been well considered, and seems eminently reasonable.
- 5. That this need is now more urgent than that of any other specific addition to the school system of Boston.
- 6. That it is, therefore, expedient for the city to proceed with the enlargement of the Mechanic Arts High School without delay.

The Finance Commission, on November 11, transmitted a communication to the Mayor stating that it had considered the report of the committee and concurred in the conclusions and recommendations therein contained. Some further delay ensued in connection with the prosecution of the work, to which the School Committee called the attention of the Mayor on November 20, pointing out that if the contracts were signed at once, so that work might promptly be commenced, a sufficient number of rooms in the addition could be made available at the opening of the next fall term, and that otherwise it would be necessary again to turn away from the school a number of boys who wish for this type of education. The

contracts were then approved by the Mayor, and the work of construction was promptly undertaken and is now in progress.

The Mechanic Arts High School constitutes to-day, and has for several years, the sole spot in the entire school system where those desiring education have been refused an opportunity to secure it; and this has occurred for six successive years. This school is intended for young men who can devote their days for four years to secondary, technical education. with sufficient general training to make them men of broad intelligence, and not for those who are engaged in earning a livelihood during the day time, or for those who simply desire to learn in the least possible time a single manual trade. It may be said to be the only institution in the public school system which gives boys an intelligent and appreciative understanding of constructive activities, and enables a boy to develop his latent capacity for usefulness in them. The disadvantages under which the school has labored for so many years with respect to adequate accommodations seems now to be about to come to an end, and beginning with the next fall term it may be expected to be in a position to receive and properly provide for those pupils who may seek admission.

EVENING SCHOOLS.

A careful examination of the equipment of evening drawing schools and of the text-books in evening elementary schools revealed the fact that both were entirely inadequate for the purposes of instruction. A large improvement in these particulars has been made during the current year, but it is recognized that this work must be supplemented by very considerable additions.

Three new elementary schools have been established and two have been discontinued. The Comins takes the place of the Sherwin, and the Phillips Brooks takes the place of the Mather. In both cases the change has resulted in increased attendance. The Christopher Columbus School, formerly a branch of the Hancock, does not adequately provide for the

needs of the North End, and it is probable that other more suitable accommodations must be provided for the increasing male population of that section.

In order to improve the methods of instruction in English to beginners, a syllabus has been prepared for provisional use, and supervisory examinations are being given to the graduating classes in evening elementary schools for the purpose of more clearly defining the character of work that is expected.

The director of evening schools has given talks to pupils in the Normal School on evening school problems and possibilities. Conferences with principals and teachers have been held on methods of administration and courses of study. A third year has been added to the course of study in bookkeeping in evening high schools, and plans have been perfected for an improvement in the work in that subject

A course of lectures on steam engineering is being given in the Bigelow Evening School in South Boston, which is attracting an increasing number of practical men.

In several schools, particularly the Comins, the principals, with the coöperation of public-spirited individuals, have succeeded in largely increasing the influence of the school by means of illustrated lectures of an educational nature for parents and others interested.

The following facts in connection with the evening school term, beginning with October last, are of considerable interest:

- 1. The enrollment in evening elementary schools has increased 536, while the average attendance has increased 930.
- 2. The enrollment in evening high schools has decreased 421, but the average attendance has increased 195.
- 3. A certain amount of the decrease in enrollment and in attendance in the evening drawing schools is due to a closer observance by the principals of the rules governing the admission of pupils, but it is difficult to account for the whole decrease in any general way.
 - 4. Although there is a decrease of 28 in enrollment in the

schools as a whole, there is an increase of 1,073 in average attendance (an increase of 12.8 per cent. over the attendance in 1906).

- 5. All three groups of schools show a gain in the percentage of attendance on enrollment.
- 6. The evening elementary schools and evening high schools show a decrease in per capita cost. This has been accomplished without loss of efficiency in instruction.

PENSIONS FOR TEACHERS.

In the annual report for 1906 it was stated that encouraging progress had been made toward the establishment of a pension system for teachers in our public schools. In March of the current year the School Committee submitted for consideration by the teaching force a plan which it had prepared, not necessarily final, but to serve as a tentative basis for discussion and criticism. This plan started with the assumption (1) that all teachers are to be retired at the age of sixty-five. (2) that no teacher should be asked to contribute annually more than 10 per cent. of his or her salary to the fund, and (3) that the city should make an annual contribution of approximately \$61,000 to the pension fund. This plan further provided that teachers who should come within its provisions at the age of forty-two or lower, should, on retirement. receive a pension equal to one-half of their salary at the date of retirement, and that teachers at the age of forty-three or more should, on retirement, receive a pension equal to one-third of their salary. Various conferences were held between the School Committee and representatives of the teaching force for the discussion of this plan, which did not meet with general acceptance on the part of the teachers, who felt that they should not be called upon to assume. personally, so large a share of the cost of maintaining such a system. After further consideration of the subject the Board prepared, and will present to the Legislature of 1908, the following bill, which, if enacted, will result in the city assuming the entire cost of pensioning retired teachers at a rate not exceeding \$180 per annum:

AN ACT TO PROVIDE FOR THE PAYMENT OF PENSIONS TO TEACHERS IN THE PUBLIC DAY SCHOOLS OF THE CITY OF ROSTON.

Be it enacted, etc., as follows:

Section 1. The School Committee of the City of Boston shall forthwith establish a permanent school pension fund for the payment of pensions, in accordance with the provisions of this Act, to members of the teaching or supervising staff of the public day schools of the city of Boston at a rate of not exceeding one hundred and eighty dollars per year, said amount being the annuity now paid to teachers coming under the provisions of Chapter 237 of the Acts of 1900 creating a teachers' retirement fund in the city of Boston. The care and investment of said fund and of any gifts or legacies made for the benefit of said fund is hereby vested in a board of three trustees, of whom one shall be the chairman of the Board of Commissioners of Sinking Funds of the City of Boston, ex officio, another shall be chosen by said School Committee, and the third shall be chosen by the Board of Trustees of the Public School Teachers' Retirement Fund in the City of Boston, established under the provisions of Chapter 237 of the Acts of 1900. The said trustees shall serve without compensation. At the first regular meeting of the School Committee of the City of Boston, held in June, 1908, and in each fifth year thereafter, or at some subsequent regular meeting of said School Committee, it shall elect one member of the aforesaid Board of Trustees who shall hold office for the term of five years. beginning with the first day of July in the year of his election. During the month of June in the year 1908, or as soon thereafter as may be, the Board of Trustees of the aforesaid Public School Teachers' Retirement Fund shall elect one of the trustees of the said permanent school pension fund for the term of four years, beginning with the first day of July of said year, and shall, at the expiration of such term, and in each fifth year thereafter, elect a member of said Board of Trustees for the term of five years, beginning with the first day of July in the year of his election. Every such trustee shall subscribe, in a book kept for that purpose in the office of the City Clerk of said city, to a statement that he accepts the said office subject to the provisions of this Act, and any elected member of said Board of Trustees whose term of office has expired shall continue to serve as a member of said board until his successor is duly elected and qualified. In case of a vacancy in said Board of Trustees by reason of the death, resignation or otherwise of an elected member, the body which elected the person who is no longer a member of said board shall fill the vacancy by an election for the unexpired term. Said Board of Trustees shall have charge and control of said permanent school pension fund and of all amounts contributed thereto, and shall invest and reinvest the same in securities, except

personal securities, in which funds of savings banks in the Commonwealth of Massachusetts may by law be invested; and said trustees may, from time to time, sell such securities, and shall invest and reinvest the proceeds thereof and the unappropriated income of said pension fund. The City Treasurer of said city shall be the custodian of all securities and money belonging to the said permanent school pension fund and shall be responsible for the safe custody thereof; shall, whenever any of such securities are sold by the said trustees for the purpose of reinvestment, deliver up the securities so sold upon receiving the proceeds thereof; shall, on such conditions and at such rates of interest as the trustees may approve. deposit temporarily in national banks doing business in Boston, or in trust companies organized under the laws of Massachusetts and doing a banking business in Boston, any money belonging to the said fund which, in the opinion of the said trustees, it is inexpedient for the time being to invest in securities authorized by this Act; and shall forthwith invest any money belonging to said pension fund in such securities authorized by this Act as said trustees may direct, and upon such terms as they may specify. The said trustees shall keep a record of their proceedings, and shall annually, on the first day of February, or as soon thereafter as may be, make a written report to the School Committee of the amount and condition of said fund. and of the income thereof, for the preceding municipal financial year, as established from time to time by said city. Their records and the securities belonging to said fund shall at all times be subject to the inspection of the School Committee. The secretary of the School Committee of said city shall be the secretary of the said Board of Trustees, and shall have the custody of all records, documents and papers belonging to them. The expense of such additional clerical assistance as may be needed in the office of said secretary, for the purposes of this Act, shall be paid from the annual appropriation for pensions hereinafter provided for.

- Sect. 2. In addition to the amounts which the School Committee of said city is now authorized by law to appropriate for the support of the public schools of said city and for other purposes, it shall annually appropriate for the purposes contemplated by this Act, and in the same manner as it makes appropriations for other school purposes, the sum of five cents upon each one thousand dollars of the valuation on which the appropriations of the City Council of said city are based, and shall, from time to time, pay over to the treasurer of the permanent pension fund such portion of the proceeds of the said five cents upon each one thousand dollars of the valuation aforesaid as, in the opinion of said School Committee, will not be needed for the purpose of paying pensions to teachers during that year.
- Sect. 3. Section 54 of Chapter 12 of the Revised Laws is hereby amended by striking out in the twentieth line of said section the words "ten and one-half dollars," and by inserting in place thereof the words "ten dollars and fifty-five cents," so that said section, as amended, will read as follows:
- "Sect. 54. The taxes assessed on property, exclusive of the state tax, county tax, and sums required by law, to be raised on account of the city

debt, shall not in any year exceed twelve dollars in any city on every one thousand dollars of the assessors' valuation of the taxable property therein for the preceding year, said valuation being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, subject to the following provisions: If the City Council of a city which contains less than one hundred thousand inhabitants according to the last preceding national or state census so determines, the average of the assessors' valuation of taxable property therein for the preceding three years, said valuation for each year being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, shall be used to determine said limit of taxation, instead of said assessors' valuation of the preceding year. In the city of Boston, and in all cities which contain one hundred thousand inhabitants or more, according to the census aforesaid, said average shall be so used. In the city of Boston said taxes shall not exceed ten dollars and fifty-five cents, instead of twelve dollars, as aforesaid. Any order or appropriation requiring a larger assessment than is herein limited shall be void. The provisions of this section shall not affect any existing exemption from the operation of the eorresponding provisions of earlier laws."

Sect. 4. The total amount of pensions payable in any one year shall not exceed the proceeds of the said five eents upon each one thousand dollars of the valuation aforesaid, together with the income accruing during that year from the investment of the permanent school pension fund.

SECT. 5. The School Committee of said city, by a majority vote of all its members, may retire with a pension any member of the teaching or supervising staff of the public day schools of the city of Boston who, in the opinion of said committee, is mentally or physically incapacitated from further efficient service. If the person so retired has attained the age of sixty-five years, or has been engaged in teaching or supervising in public day schools for a period aggregating thirty years, twenty of which shall have been in the public day schools of the city of Boston, such person shall be paid a pension at the rate of one hundred and eighty dollars per annum. If a person retired shall be less than sixty-five years of age, and shall have been engaged in teaching or supervising in public day schools for a period aggregating less than thirty years, the annual pension paid such person shall be such percentage of one hundred and eighty dollars as the total number of years of service of such person is of thirty years; provided, that if the annual pension of any such person so determined shall be a larger percentage of one hundred and eighty dollars than the number of years which such person has taught in the public day schools of the city of Boston is of twenty years, then the annual pension paid such person shall be such percentage of one hundred and eighty dollars as the person's length of service in the public day schools of said city is of twenty years; and provided further, that the pension of any teacher retired under the provisions of this Act shall terminate if, and when, in the judgment of said School Committee, the person's incapacity shall have ceased. In determining the aggregate length of service of any person retired in accordance with the provisions of this Act, any period of leave of absence under salary shall be considered as equivalent to an equal amount of actual teaching service. The City Treasurer of said city shall pay pensions to teachers retired under this Act in accordance with monthly pay-rolls prepared and certified to by said School Committee.

Sect. 6. The phrase "teaching and supervising staff of the public day schools of the city of Boston" as used in this Act shall be construed to include all superintendents, assistant superintendents, directors, assistant directors, principals of schools or districts, and regularly employed teachers, instructors and nurses in the public day schools of said city.

Sect. 7. All Acts and parts of Acts, inconsistent herewith, are hereby repealed.

Sect. 8. This Act shall take effect upon its passage.

HEADS OF DEPARTMENTS IN HIGH SCHOOLS.

The establishment of a departmental system for high schools was provided for in the rules and regulations adopted by the reorganized School Committee in 1906, but it was not until March of the current year that the first appointments of departmental heads were actually made. The purpose of this reorganization is three-fold: First, to avoid frequent variations in instruction in important matters in different sections of the same class, which had previously existed, whereby the teacher of one section followed one method, and the teacher of another section a different method; and later when the two groups of pupils were united in a single class, their progress was impeded and difficulties arose which were not easily to be met. The duty of the head of each department is to organize the work of the department itself, not so as to interfere with the individuality of the teachers engaged in giving the instruction in a certain subject nor with their freedom in selecting methods, but rather to determine and adopt the fundamental principles which should be followed by all.

The second purpose is to aid the principal or head-master of a school by appointing a number of his abler teachers to perform certain minor executive duties, and to recognize this increased responsibility both in title and in salary.

The third purpose is to re-establish that personal influence

which was formerly exerted by high school principals before their schools became so large that they necessarily were unable to come into as close contact as formerly with individual pupils. With a school of say 300 pupils, the influence of the principal upon their character was immediate and personal, but with 1,200 pupils this personal influence is, of course, very much less felt, and the pupils lose an uplifting and moral force that should be of great and positive value to their future lives.

Naturally the focus of attention has been largely upon the first of these purposes, but actually the second and third are more important, and it is upon these that the real justification for the reorganization of the high school instruction in this respect should depend. The results obtained during the seven months this plan has been in process of adoption have demonstrated very completely its great advantages, and these advantages will become even more apparent as the scheme is put into fuller and more complete operation during the year that is to come.

INDUSTRIAL TRAINING FOR ELEMENTARY SCHOOL PUPILS.

During the year an experimental modification of the elementary course of study has been made in the Agassiz District which may prove to be of great importance. Unfortunately a large number of children leave school before completing the work even of the elementary course, sometimes through immediate necessity, but often because parents desire the assistance of their children in the support of the family, and consider that another year or two of school will not substantially increase the earning power of their children. It is believed that many of these parents, and probably a majority of them, would make the sacrifice involved in permitting their children to attend school a year or two years longer if, in connection with the general educational work of the school, there could also be given to their children training which would enable them to obtain upon leaving

school a material increase in the compensation which they will receive. The present course of study does little to meet this demand, even where the average amount of attention is given to manual training, since the children for whom such training is most needed frequently leave school before reaching the point where special attention is given to this work.

In June a circular letter was distributed to the boys of the fifth grade in the school, informing their parents that an opportunity would be offered in September to fifty boys of the sixth grade to enter a class in which the course of study is planned especially for those having an aptitude for industrial pursuits; the purpose of the course being to offer more manual training, shop arithmetic, and working drawing, and, at the same time, to maintain the efficiency of preparation for the high schools. Numerous applications for admission to this course were received, and a class numbering fifty-two boys was organized in September.

The accomplishment of three months does not furnish a sufficient basis for estimating the results of the experiment, but the indications are all favorable. The boys have shown an active interest in the course, and a marked increase in the efficiency of both their industrial and ordinary school work has also been noted. The methods employed and the finished product have been subjected as far as possible to the same commercial tests as apply in actual industry. Everything is made to conform as closely as possible to actual work in real life, and the articles made are such as may be produced in quantities.

Early in the year an offer was made by the North Bennetstreet Industrial School to provide industrial training for a limited number of girls selected from the three upper grades of the Hancock School, this instruction to be given without expense to the city, and in such subjects and under such conditions as the Board of Superintendents might approve.

The proposition was accepted by the Board, and fifty girls, thirteen years of age or over, selected by the principal of the Hancock School, were given an opportunity to pursue industrial work at the North Bennet-street School instead of following the regular afternoon program at the Hancock School. Twenty of these girls were of the eighth grade, fourteen of the seventh, and sixteen of the sixth, and the class was made up of pupils from eight different rooms. Instruction was given this class in housekeeping, in sewing, and in design, and in these three activities a constant effort has been made to apply the work of the public school and to emphasize its use. This class of fifty girls was divided into groups of ten as nearly as possible according to grade and ability, and each afternoon devoted entirely to one subject. ten taking housekeeping, ten design, and thirty engaging in the various sewing activities. By changing the groups about, each girl spent one afternoon at design, one at housekeeping, and three in sewing or textile study. It has been found possible, also, to add twenty minutes for gymnastics to the afternoon program.

The object of this experiment is to determine, by the introduction of a larger amount of industrial work related more closely to the needs of girls, whether their drifting about from one unskilled occupation to another, gaining little or nothing in efficiency, may not be avoided, and their ability to earn a better living substantially increased. The experience thus far gained has not been sufficient to warrant definite conclusions, and it is proposed to continue the work for at least another year. Besides the industrial importance to the community of increasing the efficiency of its members, there is also a great moral issue involved if the schools, by extending a helping hand to the girls who now leave at four-teen, can lift them from the class of those who, are only able to partially support themselves to the point of an adequate self-support.

DRAWING AND MANUAL TRAINING.

While the work in drawing and the manual arts offers excellent training to those with unusual ability, who may make drawing, design, or constructive industry their vocation, it is planned particularly to meet the abilities of the majority of children, and to give practice in such lines of the manual arts as are valuable for all, whatever their future occupation may be, and within the reach of those with no special talent. At the same time it is based on the fact that if the right sort of training is begun in early years, ability to draw, design and make common objects fairly well is practically universal.

Briefly stated, the aim of the course in drawing is this: To develop ability

- (1.) To sketch the appearance of common objects: The ability to make rapid sketches is of universal value. It enables one to give form to ideas that cannot easily be expressed by words. A person of average ability who has learned to sketch freely finds his powers of invention quickened, for by noting down, however roughly, what ideas he has, new ideas are suggested and the plan carried more readily toward completion than would be possible without such sketches. With it one can give a workman in any line a clear idea of what he wishes made. Most working drawings, whether for machinery, architecture, or patterns of any sort, are first rough free-hand sketches, from which the more careful working drawings are developed. Apart from its industrial value, the ability to show by rapid sketches the appearance of objects is a great source of pleasure, and a strong factor in developing appreciative observation
- (2.) To make accurate records of observation: To pursue any scientific study to the best advantage demands ability to record one's observation in graphic form. By means of such sketches observation is quickened, and the record of its results made permanent.
- (3.) To show by accurate diagrams, maps, and working drawings, the shapes, patterns, and structure of objects.
- (4.) To work out problems in design and color as applied to objects familiar in school and home life: A slight acquaintance with good design gives a standard of taste and the knowl-

edge of what to buy for the home, and shows that the pleasure of exercising good taste does not depend upon the possession of wealth

(5.) To give acquaintance with examples of good art, so that the artistic resources of a city, its architecture, its museums of fine art, etc., shall be appreciated.

The course in manual training aims to develop handiness in the use of common tools and materials. It was introduced into the curriculum as a corrective of the bookish education of twenty-five years ago, which was singularly lacking in anything which could develop any form of expression except by words. Aptitude in expressing one's self in terms of material is of equal and possibly greater importance than verbal expression, and this the manual training work tends to develop.

Manual training also furnishes a means of imparting some knowledge of the principles and processes of construction, and of inculcating an appreciation of the value of accuracy. It develops the ability to plan and to carry to completion simple pieces of construction involving such principles and processes.

Manual training, also, is an educational protest against the unreality of the older education. It, therefore, deals with objects which may be put to actual use, and which enter into the life of the child in his school or his home.

Manual training is, in its wider significance, industrial training, and gives the pupil an insight into elementary industrial processes.

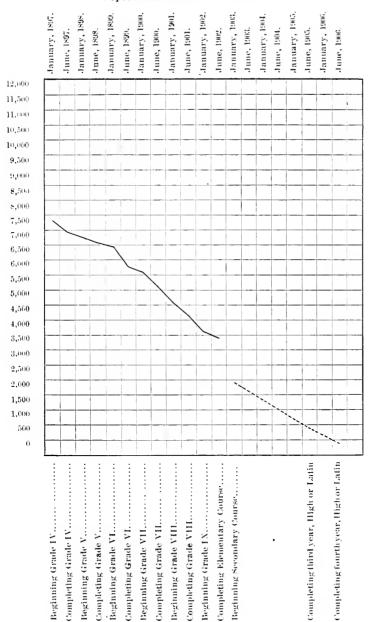
Finally, manual training is a necessary supplement to drawing, since it enables the pupil to see the value of good design through its application to construction and decoration.

PROGRESS AND SURVIVAL OF PUPILS, ELEMENTARY AND SECONDARY SCHOOLS.

The question is very frequently asked: How many pupils who enter the elementary schools are graduated therefrom, and how many of these graduates afterwards pass through the high or Latin schools? To throw some light on this

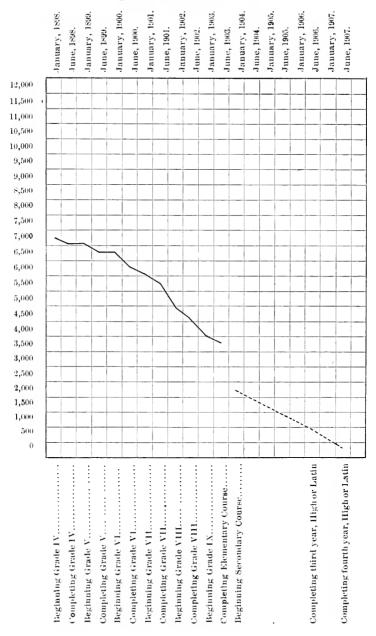
PROGRESS AND SURVIVAL OF PUPILS, ELEMENTARY AND SECONDARY SCHOOLS.

September, 1890, to June, 1906.



PROGRESS AND SURVIVAL OF PUPILS, ELEMENTARY AND

September, 1897, to June, 1907.



subject a chart has been prepared, which graphically represents the progress of two groups of pupils, one entering the fourth grade in September, 1896, and the other beginning the same grade a year later, and progressing respectively until June, 1906, and June, 1907, when the pupils continuing in each of these groups might be expected to complete the full high school course of four years.

A similar chart, which was published some years ago, contains certain inaccuracies which an effort has been made to avoid in the diagram herewith presented. The preparation of an absolutely correct statement of this character would involve an investigation of the school life of several thousand individuals, and the result would, perhaps, hardly justify the amount of time and labor that would be required. It is believed, however, that the statement herein submitted is one of approximate accuracy, and that it shows with reasonable correctness the number of pupils who, after progressing through the elementary grades, obtain a high school education. The results indicated by the accompanying chart may be stated in percentages as follows:

SEPTEMBER, 1896 — JUNE, 1906.

Percentage of pupils completing an elementary school course or its equivalent (the six grades included in what were formerly known as the grammar schools)	52.7
Percentage of pupils beginning the elementary (grammar) school course, and who subsequently entered a secondary (high) school	31.4
Percentage of pupils beginning the elementary (grammar) school course, who completed a three-year course in a secondary (high) school.	12.5
Percentage of pupils beginning the elementary (grammar) school course, who completed a four-year course in a secondary (high) school.	5.8
Percentage of elementary (grammar) school graduates, or equivalent, who entered a secondary (high) school	59.6
Percentage of pupils beginning a secondary (high) school course and completing a three-year course in such schools	39.8
Percentage of pupils beginning a secondary (high) school course and completing a four-year course in such schools	18.5

SEPTEMBER, 1897 — JUNE, 1907.

Percentage of pupils completing an elementary school course or its equivalent (the six grades included in what were formerly known as the grammar schools)	50.3
Percentage of pupils beginning the elementary (grammar) school course, and who subsequently entered a secondary (high)	21.9
school Percentage of pupils beginning the elementary (grammar) school course, who completed a three-year course in a secondary (high)	31.3
school Percentage of pupils beginning the elementary (grammar) school course, who completed a four-year course in a secondary (high)	11.5
school Percentage of elementary (grammar) school graduates, or equiv-	5.3
alent, who entered a secondary (high) school Percentage of pupils beginning a secondary (high) school course	62.2
and completing a three-year course in such schools Percentage of pupils beginning a secondary (high) school course	36.8
and completing a four-year course in such schools	16.9

RANKS OF TEACHERS, ELEMENTARY SCHOOLS,

During the ten years preceding 1906 the ranks of the regular teachers in the elementary day schools were master. sub-master, first assistant grammar school, first assistant primary school, and assistant. In 1905 a grammar school attended exclusively by boys was entitled to one, two or three sub-masters, depending upon the number of pupils, and was also entitled to one first assistant. A grammar school attended only by girls was entitled to one or two first assistants, depending upon the number of pupils, but was not entitled to a sub-master. A grammar school attended by both boys and girls was entitled to not more than one sub-master and not more than two first assistants. the number of the latter depending upon the number of pupils in attendance. In every primary school building in which there were six or more teachers of any grade, a primary school teacher could be appointed with the rank of first assistant primary school, who was required to perform such duties in connection with the school, in addition to teaching a class, as might be required by the principal of the district.

Under the regulations adopted by the new Board in 1906, certain changes were made in the ranks of teachers of elementary schools, substantially as follows: The maximum number of sub-masters who could be appointed in a boys' school was reduced from three to two, and a new rank. that of master's assistant, was established, and it was provided that each district should be entitled to one teacher of this rank. The former rank of first assistant, grammar school, was to expire with the retirement of teachers then holding that position. Provision was made that in every school building, other than the central grammar school of any district, in which there are six or more regular teachers of any grade, but no sub-master, one first assistant in charge might be appointed to perform such executive and supervisory duties in connection with the school as the principal of the district should require; and it was further provided that the rank of first assistant, primary school, should be abolished as the positions became vacant by the retirement of the incumbents. Thus, in boys' and in mixed elementary schools there were to be sub-masters and masters' assistants, in schools attended exclusively by girls there would be masters' assistants, but no sub-masters. This inequality between boys' and girls' schools with respect to teachers of a higher rank than that of assistant gave rise to a good deal of discussion, and the Board felt that the change which had been made in this respect was not altogether expedient. In November last, therefore, the regulations were again amended, and now provide that girls' schools having more than 600 pupils in grades above the third shall be entitled to one first assistant, grammar school, in addition to the master's assistant, the latter position being one common to all schools, thus placing schools attended exclusively by girls on a parity with those attended by boys and by both sexes in having two ranks above that of assistant and below master or principal.

REDUCTION IN QUOTA OF PUPILS TO A TEACHER IN ELEMEN-TARY SCHOOLS.

In January, 1907, the School Committee passed an order asking the Board of Superintendents to consider and report on the advisability of reducing the number of pupils assigned to each teacher in grammar classes composed exclusively of boys. In the following March the Board of Superintendents submitted a report in which it stated that it had repeatedly argued from an educational point of view in favor of a material reduction in the number of pupils to a teacher. In a report on this subject, made by a former Supervisor in 1895, it was stated: "The feature of the organization of all the schools calling for the most immediate and careful consideration is the size of the classes. Every school interest is being sacrificed by limiting the number of teachers as is now done. Few teachers can handle, with any hope of success, classes numbering 56 to 60 pupils. None can do it for any length of time without impairing their health. The excessive number of pupils to a teacher seems to be the parent of most of the ills from which the schools are suffering —ills on the discipline side and ills on the instruction side. Where it is not a cause of these ills, it affords an excuse for them. A weak teacher can always shelter herself behind this defence. Supervision finds at this point its most serious embarrassment." The report of the Board of Superintendents concluded with a recommendation that a gradual reduction, on a sliding scale, be made of the maximum number of pupils to a teacher in all elementary grades above the first, as follows:

- (1.) For the school year 1907, the quota of pupils to a teacher shall be 48.
- (2.) For the school year 1908, the quota of pupils to a teacher shall be 46.
- (3.) For the school year 1909, the quota of pupils to a teacher shall be 44.

With this recommendation the School Committee was heartily in sympathy. Indeed, the only reason it had not been adopted before was because of the expense. It seemed, however, to the Committee that the interests of the schools demanded that action in the direction indicated should no longer be delayed, and accordingly at its first meeting in April the regulations were amended to conform to the recommendations of the Board of Superintendents. It has not been found possible as yet to put the change into complete effect throughout the city, but encouraging progress is being made, and a reduction in the number of pupils to a teacher to conform to the new regulations is being effected as rapidly as may be without undue disturbance of the organization of the schools, and with due regard to the finances of the Board.

COMMISSION OF PHYSICIANS TO CONSIDER THE HEALTH OF CHILDREN ATTENDING THE FIRST THREE GRADES.

In June, 1906, the Board appointed a commission consisting of well-known physicians to report their opinion as to the desirable length of sessions, periods of recess, curriculum, and on all other matters relating to the health of children attending the first three grades. The report of this commission was received at a meeting of the Board held on January 26, 1907, and was ordered printed as a school document (No. 2 of 1907). The commission as originally named by the Board, consisted of seven members, five of whom accepted the invitation to serve. These five members met in June and adopted the following outline of work.

(1.) A study of the literature pertaining to the investigation; (2) visiting some of the primary schools in the different sections of the city; (3) conferences with the Committee of Masters appointed by the School Committee to coöperate with them; and (4) a conference with the Chairman of the Boston Board of Health. The commission, as a result of their labors, with the unanimous approval of the Masters' Committee, presented for the consideration of the Board the following recommendations:

- I. Regarding the school buildings:
 - (1.) That efficient artificial lighting be installed in all school-rooms and toilets.
 - (2.) That until such efficient artificial lighting be installed, the masters be empowered to dismiss on dark afternoons those rooms where the light is so dim as to strain the eyes of the pupils.
 - (3.) That the windows be cleaned more frequently, especially during the winter months.
 - (4.) That smooth pavement be laid on the streets adjoining school buildings to lessen the noise.
- 11. Regarding the sessions and recesses:
 - (1.) That the present rule of two sessions be continued.
 - (2.) That the afternoon recess be lengthened and devoted to play.
- III. Regarding the curriculum:
 - That games and manual training, so far as possible chosen by the pupils, be introduced in place of the present schedule during the last hour of the afternoon session.
- IV. That the classes of the first grade be limited to twenty-five members, of the second grade to thirty-five, and of the third grade to forty members.
- V. That special provision be made for the care and study of the backward children, especially in these grades.
- VI. That competent trained nurses be appointed to supplement the work of the medical inspectors.

All or nearly all of these recommendations have been carried into effect. The subject of artificial lighting of school buildings was referred to another committee, consisting of oculists and electricians, and their recommendations, will be found elsewhere in this report. The suggestion that smooth pavement be laid on streets adjoining school buildings, in order to lessen the noise of traffic, has been called to the attention of the Mayor, but no definite action has yet been taken in this respect on account of the large expense involved. An appropriation of \$1,500 was made for the purpose of carrying into effect the recommendations with regard to the lengthening of the afternoon recess, and the introduction of games and manual training, which is now being experimentally tried in some fourteen schools. The general regulations of the Board have been

amended, so as to provide for a gradual reduction in the quota of pupils to a teacher. The recommendation that special provision be made for the care and study of backward children has been referred to the Superintendent, who now has the matter under consideration, and his suggestions with regard to the manner in which such children can best be aided to obtain an education suited to their abilities and needs are expected at an early date. A corps of nurses has been appointed under the authority given by a recent legislative act to supplement the work of the medical inspectors, and a statement with regard to the services of these nurses will be found elsewhere in this report.

ARTIFICIAL LIGHTING AND COLOR SCHEMES IN SCHOOL BUILDINGS.

In April, 1907, the Board appointed a committee, consisting of three occulists and two electricians, to consider the lighting of school buildings and their color schemes, and to present recommendations that would tend to improve any faulty conditions that might exist to the injury of the evesight of pupils and teachers. The report presented by this committee in December (School Document No. 14, 1907) contains a large amount of valuable information relating especially to the artificial illumination of school-rooms, a subject of very great importance, but on which there is at present little definite and precise knowledge, and a very marked lack of uniformity in practice. The committee visited a considerable number of different school buildings, and, after consultation with various illuminating engineers and electricians. conducted a number of experimental tests among varying conditions in a school-room especially fitted up for the purpose. It also considered the question of what tints were best adapted for school-room walls, and finally adopted a series of recommendations which appear in full in the document referred to and which may briefly be summarized as follows:

That two-foot candle power should be the minimum illumi-

nation at each desk; that electric fixtures should consist of a simple rod or chain from which is suspended a shadeholder, a shade and a lamp socket. The shade to be open at the base, made of clear glass with the inner or outer surface enamelled to give the appearance of frosting, and the outer surface fluted in a manner similar to the ordinary prismatic shade, the lamp in each fixture to be of 36 candle power and of the Tungsten type. The committee obtained the most satisfactory results from nine such lamps so arranged and suspended from the ceiling in a school-room in such a manner as to throw the centre of light distribution slightly to the left of the middle of the room when facing the teacher's desk. Tungsten fixture recommended by the committee costs approximately \$5, including the lamp. The committee further recommended that shades of light green or buff, and conforming to the samples submitted with the report, be adopted for school-room walls, and that the woodwork and desks in all cases should be of a light color.

The School Committee feels that the information contained in the report made by this committee is of very great value, and that it undoubtedly will lead to improvement in a matter which is of large importance to the physical welfare of both day and evening school teachers and pupils.

EXTENSION OF SCHEDULE OF COMPENSATION FOR JANITORS TO INCLUDE HIGH SCHOOLS.

In 1904 a schedule of salaries for janitors of grammar and primary school-houses was adopted by the School Committee, under which the compensation for the janitor service of such buildings was based upon the actual amount of work required in each case, and this was arrived at by careful measurements of the buildings and grounds affected. The practically immediate result of the adoption of this schedule was the cessation of complaints on the part of the janitors of favoritism and unfairness in the fixing of their respective salaries, and while it was not claimed to be complete and per-

fect in all its details, it was recognized that it treated all who were affected by its operations upon an absolute and fixed basis, and that no preference was exercised in favor of any individual.

For various reasons it was not deemed expedient to adopt this schedule for high school-houses until March 1 of the current year, when it was applied to all buildings of this class, with the exception of three where peculiar conditions exist that render it inadvisable to include them with the rest. The adoption of this schedule for high school-houses resulted, of course, in increasing the salaries of some individual janitors and in decreasing the compensation of others, but the net variation between the old and the new rates in the six buildings concerned amounted to a decrease of but \$348 per annum.

TEACHERS' CERTIFICATES OF QUALIFICATION.

The present system of issuing certificates of qualification to persons who desire to become teachers in the public schools of Boston dates from 1876, when certificates of service, so called, were issued by the Board of Supervisors to all teachers who were then employed. Since then certificates of qualification have been issued by the Board of Supervisors or by the Board of Superintendents only to persons who have successfully passed the prescribed examinations for the certificate of the particular grade or subject applied for, except that graduates of the Boston Normal School, having been especially trained for service in the elementary public schools of the city, receive, with their diplomas, certificates of qualification of the proper grade without being obliged to pass an additional examination therefor. In consequence of the natural development of the school system the grades of certificates have varied from year to year, and the scope of the examinations prescribed for various positions has likewise varied until the situation ultimately became exceedingly confused with respect to the eligibility of the holders of the different grades of certificates for appointment to particular positions. For example, at one time the holder of a high school class A certificate was eligible to practically any position in the teaching service, and at a later date this broad eligibility was somewhat curtailed. Then again, new positions were created from time to time and appointments made thereto, while certificate requirements for such ranks were not established until a considerably later date.

Finally, in November last, and on the unanimous recommendation of the Board of Superintendents, who had given a good deal of consideration to the subject, a schedule of eligibility was prepared, submitted to and adopted by the School Committee, which definitely settled the embarrassing questions that have frequently arisen in the past. In the preparation of this schedule, an effort was made to establish a reasonable and harmonious plan that should safely guard the interests of the school system as a whole and would also protect the previously acquired rights of individuals.

ARITHMETIC.

A good deal of attention has been paid during the past year to improving methods of teaching arithmetic, especially in the lower grades of the elementary schools. An expenditure of about \$1,500 has been made for the purchase of suitable material for the study of such work in the first two grades, so that each teacher of these grades now has a sufficient number of sets of questions and illustrative material for the study of linear, surface, and solid measurements. A course of seventy-eight lessons was arranged for the benefit of the teachers of the lower grades, in order that they might become familiar with the new plan for the teaching of number, and these lessons have been largely attended by such teachers, who have expressed to the Board their appreciation of the opportunity thus afforded them.

THE JAMESTOWN EXPOSITION.

The exhibit made by the public schools of this city at the Jamestown Exposition was quite extensive, and received a

great deal of careful study and examination by visitors from all parts of the country who were interested in educational matters. In fact, the exhibits which we have previously made at Chicago, at St. Louis, and at Omaha failed to receive as close and as critical examination from genuinely interested persons as the material which was sent to Jamestown. exhibit has been solicited for permanent display in other countries, but it was deemed best to have it returned to Boston, and it has now been placed in our own Normal School. where it is to form the nucleus of a permanent exhibit of the work done in our school system in order that our own teachers. as well as visitors to the city, may be able to keep in touch with our educational progress along various lines. also intended, by successive additions to the material already on hand, to show clearly and interestingly the various details of our educational activities.

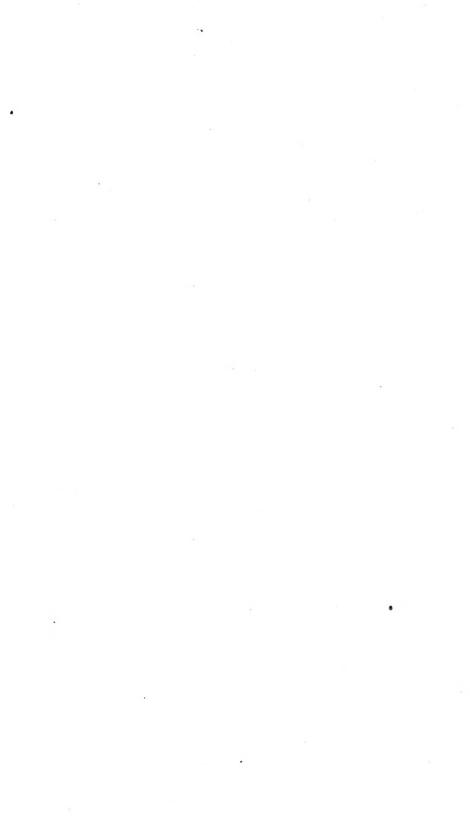
For the exhibit made at Jamestown, a diploma of a gold medal was duly awarded by the proper authorities.

Miss Ellen M. Murphy, Principal of the Dillaway District, died on April 13, 1907, after a lingering illness.

She was born in Roxbury on March 17, 1860; was graduated from the Dillaway Grammar School in 1875, from the Roxbury High School in 1878, and from the Boston Normal School in 1879. In November, 1880, she was appointed as a permanent teacher in the Lewis School, where she was promoted to the rank of first assistant in 1896. She remained in this latter position until October 1, 1906, when she became master of the Dillaway School.

Miss Murphy, it will be seen, was a product of the Boston public school system, in which practically her entire life was spent, first as a pupil and then as a teacher, and where she rose finally to the important and responsible position of principal of a large elementary school district, the duties of which she discharged with efficiency and faithfulness during the brief period she was permitted to enjoy the well earned reward for her many years of devoted service. The public schools of Boston have always been fortunate in the quality, character, and zeal of the teaching staff, and to the high standard so long established Miss Murphy fully conformed.

JAMES J. STORROW,
Chairman.
DAVID A. ELLIS,
GEORGE E. BROCK,
THOMAS J. KENNY,
WILLIAM S. KENNY.



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